THE BOSTON
Medical and Surgical
JOURNAL

VOLUME 192 APRIL 30, 1925 NUMBER 18

## ORIGINAL ARTICLES

# THE KEY MODEL TONGS FOR SKELETAL TRACTION*

### A Description and a Case Report

BY AUGUSTUS THORNDIKE, JR., M. D., BOSTON, MASSACHUSETTS

IT is always of interest to learn of different types of apparatus used in the treatment of fractures. Particularly is it of interest to learn of good pieces of apparatus used by our fellow surgeons in other parts of the world. This model has as yet not been described in the medical literature, and it is for this reason that the author desires to bring it to the attention of the profession.

There are many models of ice-tongs now in vogue, but this particular one the writer believes to be simpler in construction, to cost less and to be as efficient as any. It has been used for skeletal traction during the past seven years at the Maria Hospital, Stockholm, Sweden, and it is there that the writer first came in contact with it.

Taken from a model originally built by Schmerz[1], this has been modified so as now to be of very practical value. Professor Einar Key of Stockholm, Sweden, invented an attachment to Schmerz's original model which has made it most serviceable. The Key model, by means of a simple lock-nut, can be applied single-handed to the cortex of long bones without the slightest danger of divergence or convergence of the points under traction. This was not true of the Schmerz tongs. In recent correspondence with Professor Key, he has informed the author that his slight addition to an already described model was very trivial and that he had not described it.

Such an invention, however, is worthy of description and commendation. Having been a former assistant in the Stockholm Professor's clinic, and having observed this piece of apparatus in use there, it is in an endeavor to show my appreciation of many of its fine qualities that the author is describing this. To Professor Key, alone, belongs the credit for the invention and it is with his permission that the writer is describing it.

The tongs most frequently used in our own country are built of two pieces of metal jointed together near the handle and in such a manner as to resemble closely the ice-man's model. On the other hand the Schmerz and Key models are built of one piece of metal in such a way that a circular loop spring forms the handle and acts, by its own force, to give pressure against the cortex of the bone.

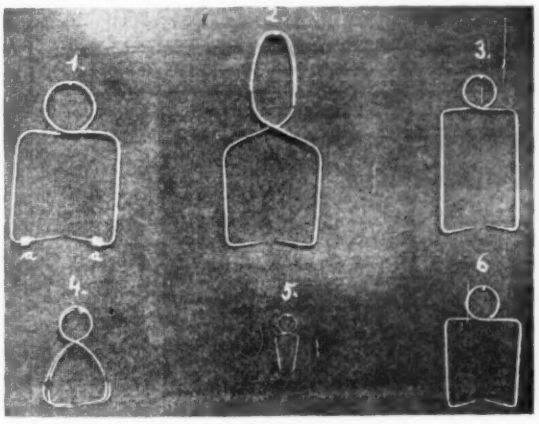


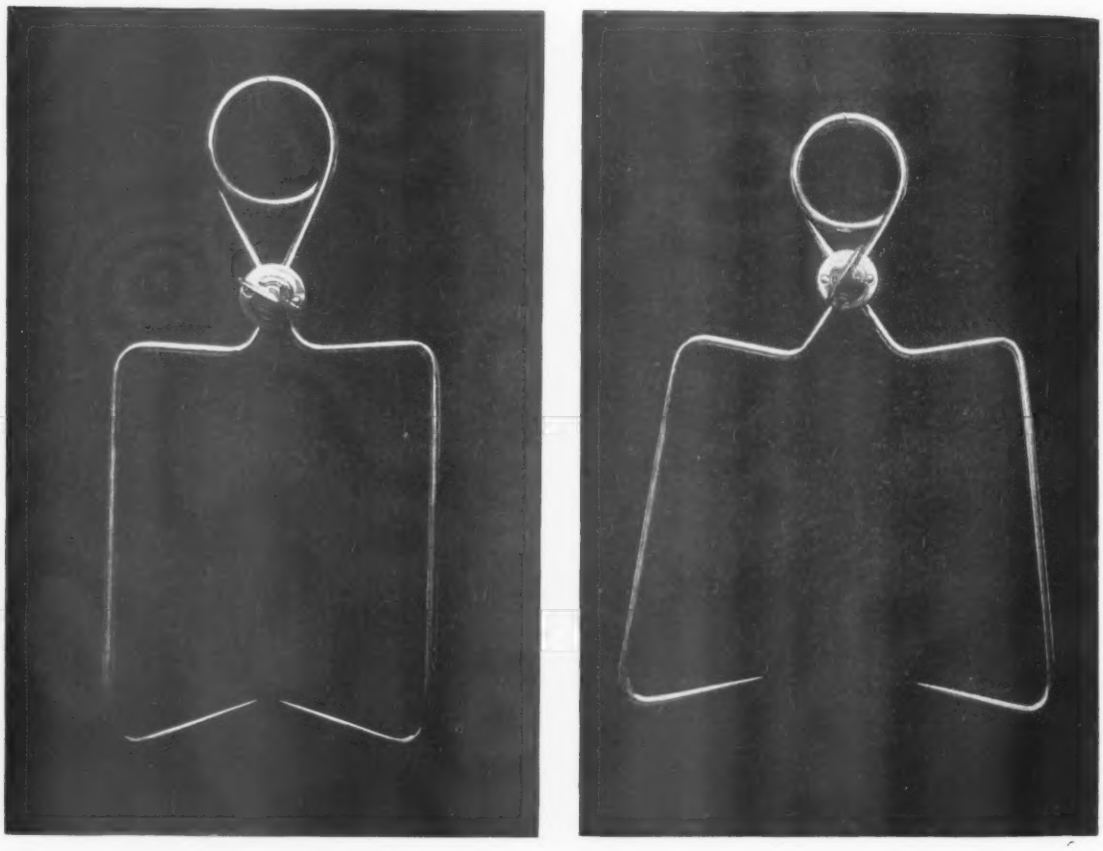

FIG. 1. The Schmerz Model Tongs. 1—Tongs for upper limb. 2 and 3—Tongs for lower limb. 4—Tongs for patella. 5—Tongs for fingers, toes, hand and foot bones. 6—Tongs for upper arm.

The Schmerz model, as illustrated in Figure 1[2], is manufactured in different sizes, applicable to different bones. The points are round and non-cutting and therefore will not pull through the cortex under traction. However, there is no device to prevent separation of the points with the application of traction.

The Key model, as illustrated in Figures 2, 3 and 4, differs from this in several features. First, the circular spring is a double instead of a single loop of steel and it is constructed further away from the arms so as to permit space for a neck upon which a lock can be placed. Second, the lock, as illustrated in Figures 5 and 6, is a most ingenious attachment, constructed of two base plates held together by two screws, two

*From the Surgical Service of the Children's Hospital, Boston.

grooved slots through which the two rods of the neck pass, and a thumb screw which is attached and makes adjustable one of the grooved slots of the nut. It is well to note in Figure 3 that the lock, when loose, slides up and down the neck of the tongs and that whenever locked the two rods cross each other. Third, being constructed of non-rustible steel, there is no danger of leaving in the wound small fragments of nickel or other metal, and the points do not



FIGS. 2 and 3. Demonstrating the tongs closed, and locked open—Key Model Tongs.

become dull or corroded by the tissue juices. And fourth, with the aid of the adjustable lock, it can be applied to any sized bone, whether os calcis,

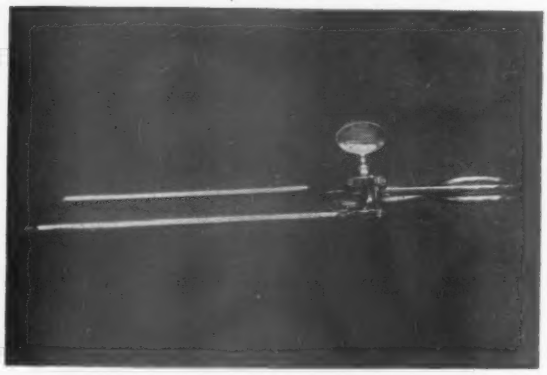


FIG. 4. Detailing the lock-nut—Key Model Tongs.

malleoli, humerus or femur. This model is simple in construction, easily applied and costs but thirty Swedish crowns, i. e., eight dollars and ten cents, at Stille-Werner's in Stockholm.

The application of the tongs is carried out as is customary in all skeletal traction operations. However, it is well to point out that, there being a spring force and but one screw to adjust, the procedure can be easily accomplished with one pair of hands. In the Maria Hospital there is no hesitation at the application of tongs for skeletal traction, even in children. It is the method of choice in all fractures of the shaft of the femur and it is not considered a radical method of treatment, even in the young. In all Swedish clinics the asepsis is so splendid that the question of infection never enters the minds of the surgeons, and rightly so.

In Professor Key's clinic fractures of the shaft of the femur with over-riding of the fragments are all placed on skeletal traction. In cases of children, however, the tongs must be applied to the diaphysis and not the epiphysis and must be inserted at least 1.25 cm. proximal to the epiphyseal line of the distal fragment. Traction is applied in the vertical plane and the body-weight, as distributed at the pelvis in a recumbent patient, suffices for counter-traction. Sufficient weight is applied to just raise the but-

tock on the affected side clear of the bed, or Bradford frame. The knee is flexed at 90° and the lower leg is supported on a wide sling, from the Rainbow or Balkan frame. Figure 7 illustrates the author's first patient treated by this method. The discomfort and inconvenience caused by a Thomas splint is not necessary and the patient can be easily handled by the nurses.

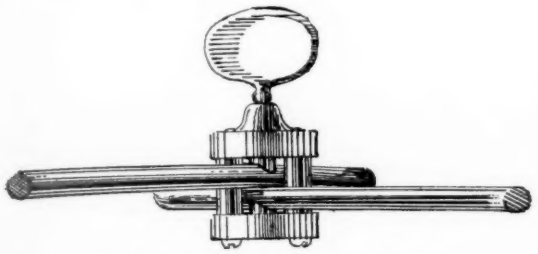


FIG. 5. Detail drawing of the lock-nut.

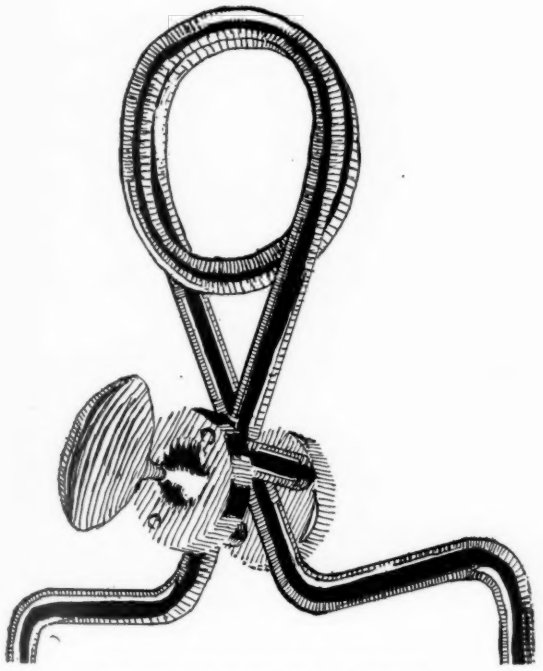


FIG. 6. Detail drawing of lock-nut.

The author's first case*, illustrated in Figure 7, is here reported.

R. M. 3½ years old.

F. H. and P. H. Not important.

P. I. While playing on sidewalk with friends, the patient was sent across the street. On crossing, he was hit and knocked down by an automobile. It is thought that one of the wheels went over his left thigh. He was carried immediately to the hospital.

P. E. Well developed and nourished child of three years. Conscious on arrival at the hospital.

General examination essentially negative.

Local examination:

1. Laceration about 1 cm. in length in the center of a large contusion on the right side of forehead.

2. Left upper leg, short, swollen. Extreme tenderness with marked deformity in middle third of shaft. Abnormal mobility and crepitus made out.

X-ray showed fracture of middle third left femur with 6 cm. overriding.

Operation:

Under ether anesthesia, the Key model tong was applied. The skin of the lower thigh, knee and lower leg was prepared with soap and water, alcohol, ether, and iodine. At a point estimated to be 2 cm. proximal to the epiphyseal line in the distal fragment, a small stab wound was made on the lateral and another on the medial aspect of the skin of the thigh. With a periosteal elevator, the periosteum was scraped on each side of the distal fragment of the femur. The Key model tong was applied at these points and after a slight tap with a hammer the lock nut was made fast.

The child was put on 10 pounds traction with femur in the vertical position immediately.

3rd day: X-ray plate showed fragments about, but not quite, by. 5 pounds added to traction. No pain or discomfort.

5th day: X-ray plate shows fragments in good alignment. Traction weight reduced to 10 pounds.

7th day: Fragments begin to show anterior bowing. 5 pounds traction with pulley at foot of crib applied at site of fracture, by means of a webbing sling.

12th day: Perfectly comfortable.

20th day: No change in patient's comfort. X-ray shows much callus formation and fragments in good alignment. Weight reduced to 8 pounds vertical.

23rd day: Position of thigh not so good. horizontal traction applied to side of crib with pressure exerted on medial aspect of proximal fragment.

25th day: Ether operation. Removal of tongs. Plaster spica applied from the knee to the ribs with the thigh in a vertical position and knee flexed, lower leg supported by plaster gutter.

34th day: Patient now extending and flexing knee with good active motion. Still in plaster.

38th day: Plaster cast removed; motions of knee and ankle joints good. Callus solid and abundant.

47th day: Beginning to bear weight on left leg. Discharged from Hospital.

62nd day: X-ray taken, with six foot focus, of both femurs, shows the left femur to be 0.3 cm. longer than the right by actual measurement on the plate. Patient is walking with a very slight limp. Discharged.

*From the Surgical Service of the Children's Hospital, Boston.

CONCLUSIONS

paper, the author describes and il- a model of traction apparatus invented by Professor Einar Key of Stockholm, Sweden. It is of simple construction and easy to apply. The author's first case treated with this apparatus is described and the end result as on the 62nd day shows the fractured femur to possess no shortening, in fact 0.3 cm. lengthening.

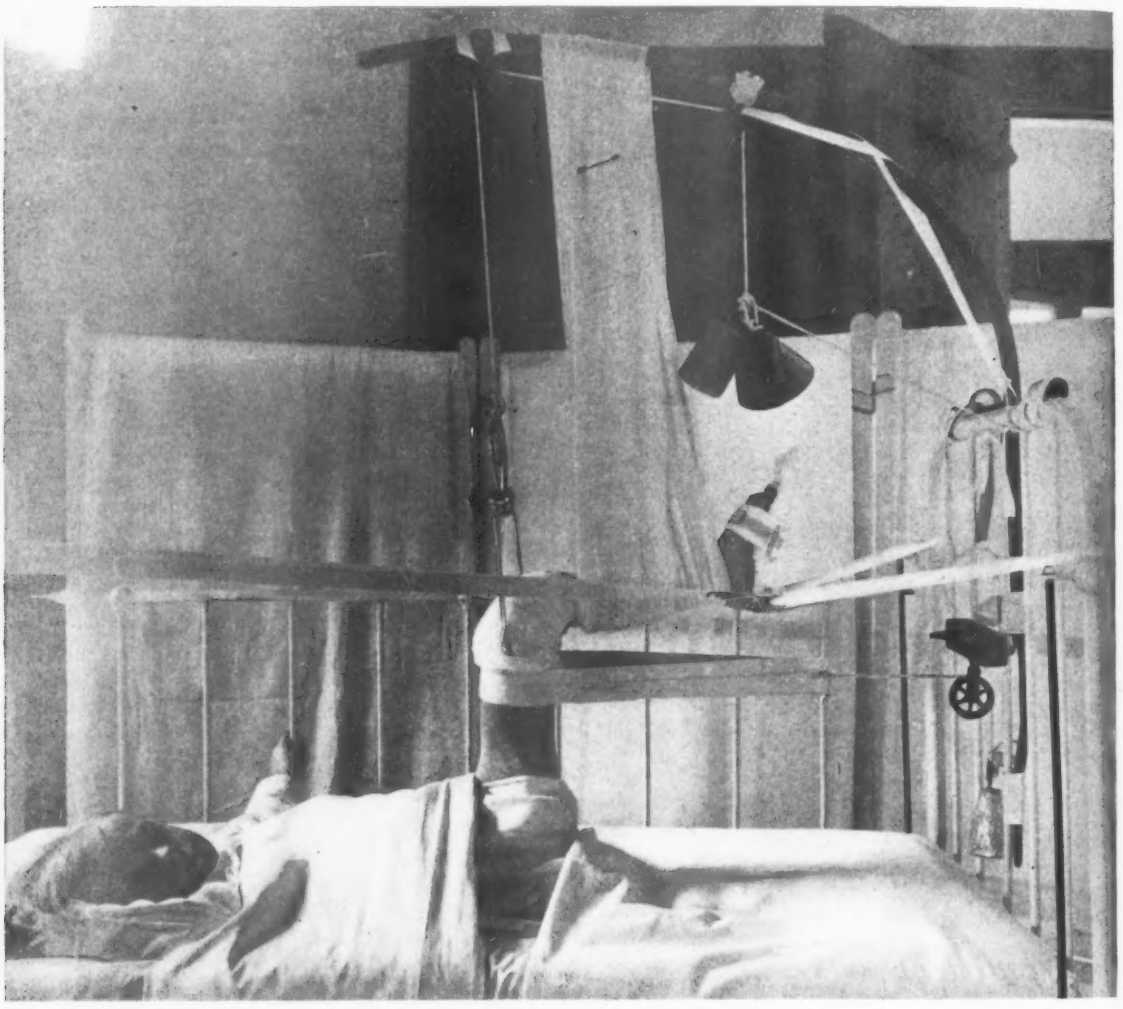


FIG. 7. Patient 3½ years of age on Skeletal Traction with Key Model Tongs. Note position of leg and buttock.

REFERENCES
1 Schmerz, Hermann: Beiträge zur Klinische Chirurgie, Vol. 97, p. 420, 1915.
2 Schmerz, Hermann: Beiträge zur Klinische Chirurgie, Vol 97, p. 427, 1915.

## COMMINUTED FRACTURED DISLOCATION OF RIGHT ELBOW—OPEN REDUCTION

BY LOUIS A. O. GODDU, PH.G., M.D., BOSTON, MASS.

JULY 23, 1923, child seven years of age was playing seesaw and fell, injuring right arm. Child was brought to hospital on stretcher. Examination showed right elbow held extended, lateral deviation little higher than tip of elbow, evidently a displacement and fracture. A small blister could be seen anteriorly, skin was shiny, red, and whole region very tender. On account of the general condition it seemed unwise to do very much manipulation, and X-ray was advised. As can be readily seen by Plate 1, patient had a T fracture of the lower end of the humerus, all the fragments were dissociated one from the other, and likewise there was marked dislocation. Under the existing conditions the writer placed the child's arm on a pillow and advised ice bag applied for first twenty-four hours.

In the above case it seemed that the problems presented were these—First, the shock of the injury together with the trip and large amount of apprehension did not leave the child in the best of physical condition. Second, as to the local condition we had at hand a bad fracture, with marked local symptoms, swelling, etc., a sharp end of bone that was almost through the skin anteriorly. It did not seem to the writer that it was practical to put the arm up in acute flexion on account of the large amount of swelling present, the decided dissociation of the fragments seemed to offer little hope for the reposition by acute flexion, and it was reasonable to assume that the end result would not be good with this large amount of displacement, furthermore there was grave danger of compounding the fracture, also one was unable to tell what complications might ensue as the result of swelling and pressure, and there was the possibility of eschemic paralysis to bear in mind. The writer therefore decided that a period of conservative treatment should ensue, the objects being primarily to get the child in better physical condition, second, the subsidence of swelling and local symptoms. Therefore it was decided that this particular case could not be treated without an open operation. The writer feeling that such an operation offered the best results for a good functional elbow. Therefore after a period of observation of about ten days the following operation was performed.

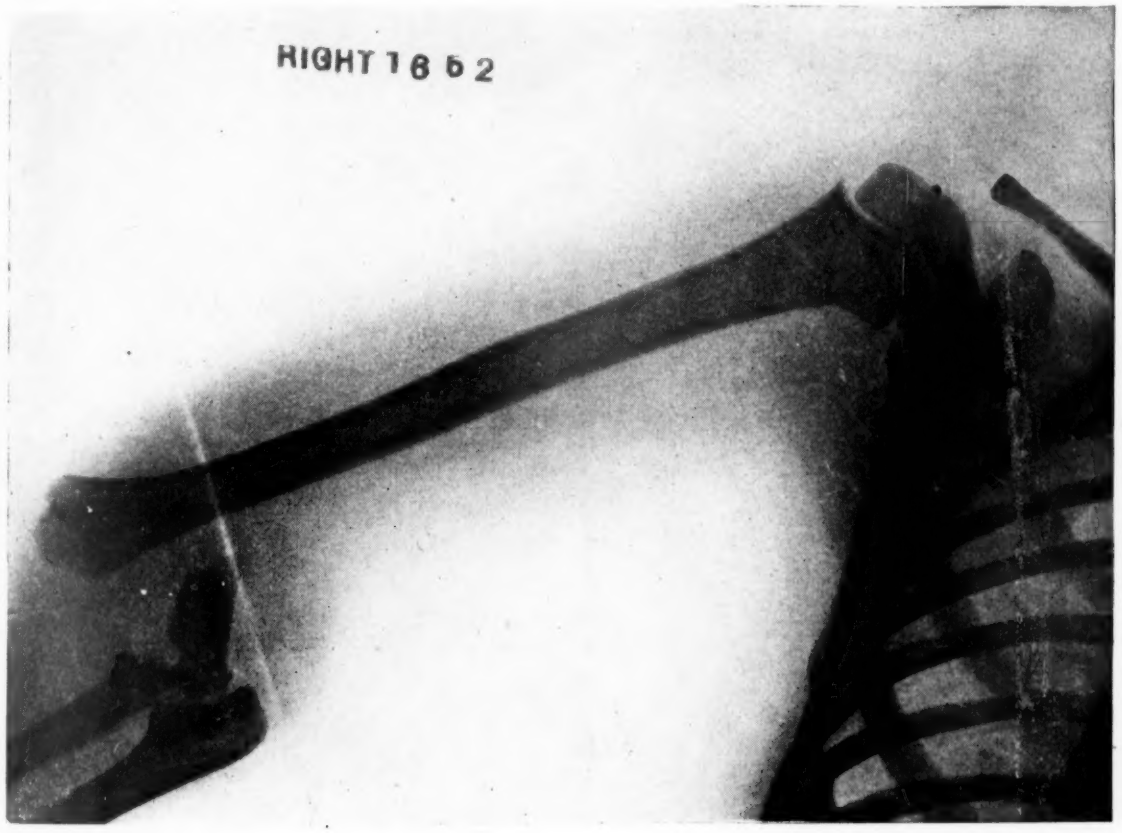



PLATE 1 and 2. Shows a definite comminuted fracture of the lower end of humerus, with marked displacement. Looking at the lateral picture closely it can be observed how near the surface the lower end of the humerus is.

### OPERATION

A circular incision was done beginning about 1 inch on either side above internal and external condyle, the convexity downward, the skin flap was turned up, the ulna nerve was isolated, held away from the wound by a piece of rubber tissue to prevent injury. With a curved chisel two distinct cuts were made to remove the olecranon process, this done so there was a spine between the two concavities of the fractured olecranon, this was lifted up exposing the elbow joint which could be seen to have had a T fracture, the internal and external condyle was readily obtained, but the shaft of the humerus had been displaced forward and downward. With some difficulty this shaft was released and brought up, with a hole drilled through the external condyle carrying it through the internal condyle two heavy kangaroo sutures were passed, these held tight uniting the internal and external condyle at line of fracture, then two holes were drilled in the lower end of shaft, tied to the internal condyle with coarse kangaroo tendon, the entire capsule sewn on each side down to where the olecranon process was attached to the ulna. Two holes drilled in the shaft of ulna, two holes drilled in olecranon

process with the shaft; a new bed was made for the ulna nerve between the internal and middle head of the triceps, the skin wound closed with silk interrupted sutures; arm put up at right angle, rubber tissue for a drain in the external lower end of the incision; plaster was put around the shaft and the arm was flexed at right angle and pointing upward towards the head, plaster cast applied around chest, including whole arm, elbow put at right angle.

Aug. 4—Forty-eight hour wick was removed, and the drainage had been very little. Child was comfortable, has motions of all fingers and apparently the manipulation of the ulna nerve did no considerable damage. Fourth day child was up and around the ward with arm in plaster. From this time until August 23rd child was running around, and on this date discharged home from hospital.

August 27 or a period of twenty-five days after operation the cast was removed, a small area where the wick had been was not entirely healed, but did not seem to be deep or give any particular trouble. Had about 10° passive motion without pain, active supination and pronation were quite good and painless, on the whole the situation seemed excellent, the arm was put up with a simple sling.

August 31—Passive motion and rotation continued good, passive motion increasing in flexion and extension to about 20°, this at 10° less than right angle, and 10° more than right angle. On this day X-rays were taken, as can be seen by Plates 3 and 4, report of which is appended.

Sept. 4—Skin condition practically healed, has active motion; 15° flexion and 15° extension, this arc is painless, further forcible motion gives pain.

Sept. 22—Manipulation, slight adhesions could be felt to give way in the elbow and patient had no ill effects from it.

Oct. 8—Arm can flex actively to about 65° flexion and extend to about 120°. Patient advised to exercise by pulley and weight.

PLATE 3. X-ray taken at the Roxbury Hospital, August 13, 1923. Postoperative reduction. Position of fragments appear in excellent position. (Signed) F. W. O'Brien.

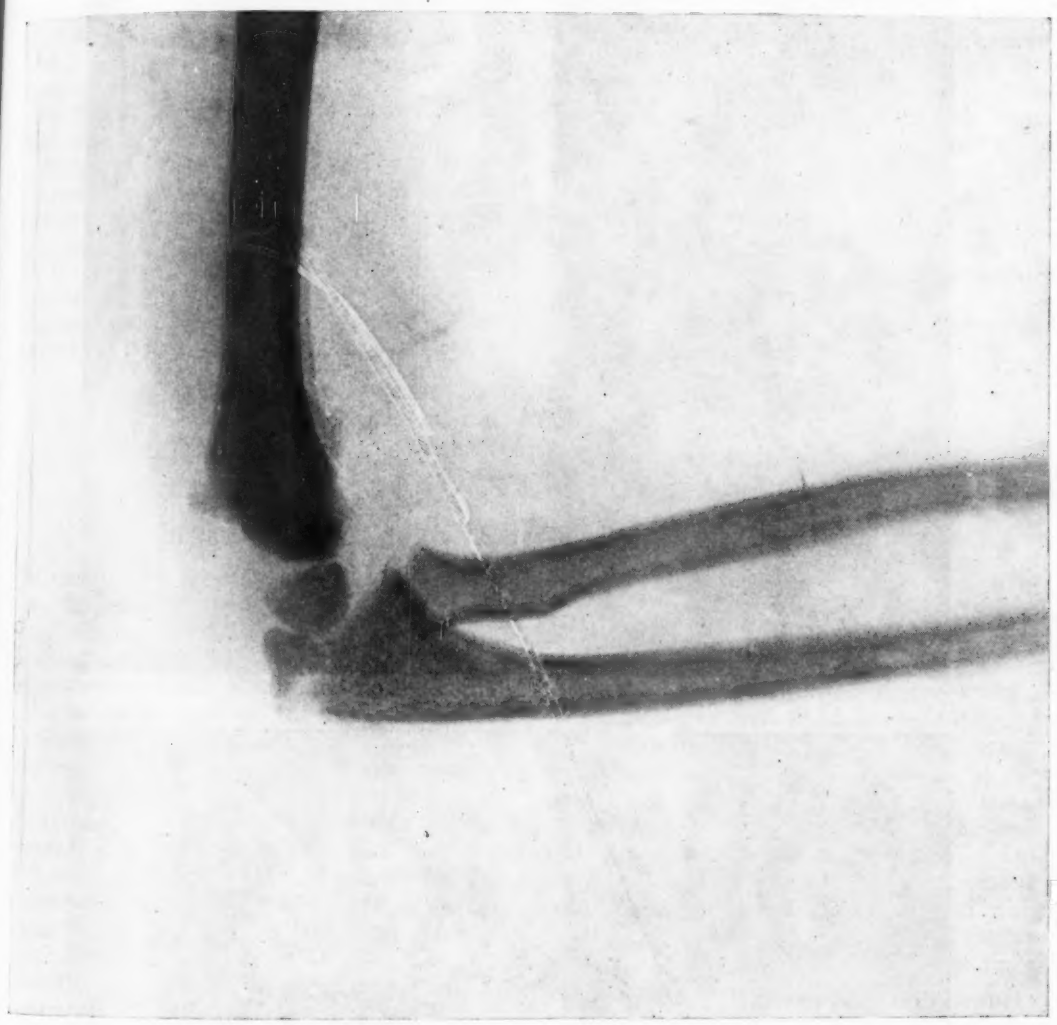
August 13, 1923.

Post reduction. Position of fragments appear in excellent position. In the ateral view the appearance is given of the internal condyle being displaced downwards, although this may be due to angle at which film was made.

In the foregoing case it seems that several points are brought up that merit discussion. In a perusal of the literature and textbooks relative to this type of fracture the consensus of opinion seems to be that T fractures and dislocations are unusual in children, and even though the fracture is not a T fracture it must be admitted that fractures of the elbow seem to give us more often than otherwise unsatisfactory results.

The first point to bring up is when does a fracture become surgical? By which statement I mean when should we do an open reduction? With the improvement of technique and our knowledge of asepsis, it seems to the writer that many of these fractures of the elbow demand open reduction treatment at the start, by this I mean that we have so many complications that might ensue, such as limited motion because of poor apposition of the fragments, thus causing limitation, also more or less stiff elbows, also the exceedingly disabling ischemic paralysis which happen only too frequently.

The writer does not see why in the hands of proper operators that these fractures are not taken care of by open reduction, with the advanced knowledge that X-ray gives. It does seem as though one should be able to open an elbow, and reduce the fragments to a fairly perfect anatomical relation. The after care be-



Lateral picture three weeks after operation.

August 31, 1923.

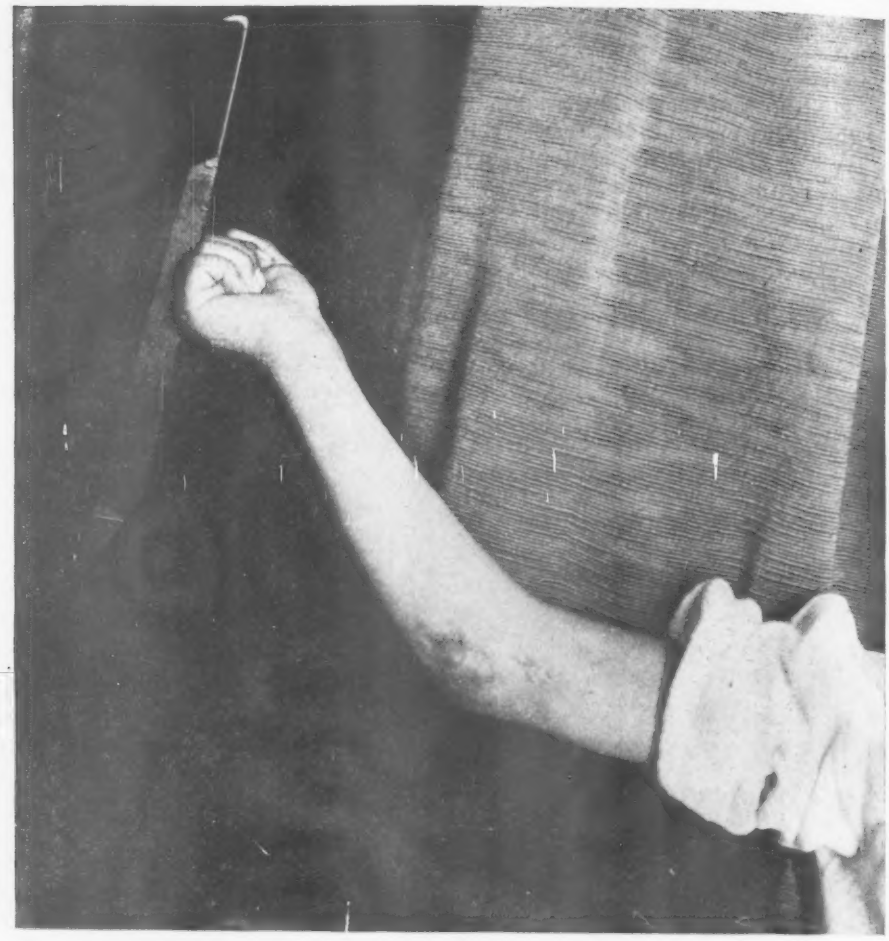
Examination was made of the right elbow.

The films show a transverse fracture involving the lower end of the humerus. There is also an oblique line of fracture involving the inner portion of the lower end of the humerus. This inner fragment of the humerus is displaced upward to a very slight degree. There is no appreciable lateral displacement.

The position of the outer fragment of the lower end of the radius is practically perfect. There is no displacement of the capitellum.

The films also show a fracture through the proximal end of the ulna going into the joint. This condition of the ulna is probably the result of surgical treatment.

There is evidence of normal appearing bone callus about all the fragments, and from the amount of callus formation that we find we feel that union is fairly solid.



PLATES 4 and 5. Picture shows the arm in January, 1924, with active flexion and active extension. Patient has complete rotation, supination and pronation; good power, increasing every day. At present writing, May, 1924, patient has increased the above arc of motion, and our expectations are for a perfect functioning arm.

comes much easier. There is no necessity for several external splint applications for retention of the fragments, and certainly we do get a quicker union, and in this way we are able to begin motion earlier after we have such a reduction.

Such an injury as this case represents seems to the writer to indicate without doubt at the start a surgical procedure, and the writer is inclined to feel that there would be a less percentage of poor results were these cases judged open reduction cases at the start, rather than attempts made at other methods. It has come to the writer's experience that a great many of the poor results in fractured joints are the results of giving the patient hope by conservative treatment, then after the patient has gone a while with the conservative treatment to suggest to the patient a week or two later that an open reduction is necessary. Many patients have stated to the writer that they would have appreciated much more the surgeon telling them at the start that such a procedure was necessary for the reduction of the fracture, and would have been willing to have it done. If the surgeon decided that such and such a certain fracture indicates open reduction, he can arrange with the patient, and do the operation under the best of conditions, but to wait after a period of conservative treatment, such as traction, splinting and other methods are carried out in fractures that obviously indicate that an open reduction is necessary, the writer feels that this is losing time, wasting the patient's energy and tends to discouragement. It is to be noted that after these cases are treated as the above case that the trauma done does not give the amount of swelling and inconvenience to the patient, as does splinting and they usually do very well.

This case shown before the Boston Orthopedic Club, Mar. 31, 1924.

## THE HEALTH UNIT AND THE GENERAL PRACTITIONER

BY DR. CHARLES F. WILINSKY

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Health Center development began only a little over ten years ago, in several of the large cities of the United States, with emphasis differing on particular phases of health work in the different centers then created. While one center emphasized a campaign against tuberculosis, another specialized in venereal disease control. The majority concentrated upon child health and welfare.

New York City theorized and developed, in a measure, the idea of a chain of health centers which might best serve the population needing the same, and from this grew a chain of approximately twelve, under Dr. Haven Emerson's administration.

Boston, late in 1915, during the previous administration of Mayor Curley and Dr. Francis X. Mahoney, created the Blossom Street Health Unit, evincing thereby a desire and interest to try out the health center experiment in Boston.

The favorable endorsement since then of the agencies interested in health and welfare work of the program carried on at the Blossom Street Health Unit, and the excellent community reaction to the work being carried on, is emphasized by constantly increasing attendances at the various preventive clinics functioning at the Unit. This has stimulated a desire for this service in other sections of Boston and groups representing residents, welfare agencies, churches, etc., from time to time, have approached the Health Department and the Mayor's office, with insistent demands for the development of other Health Units in their neighborhoods urging that it was justifiable, worth while and necessary.

The favorable and generous reaction of the Mayor and the other trustees of the George Robert White Fund, who recognized the virtue of this work and voted to erect a chain of Health Units, has already resulted in the building of one in the North End which is now actively functioning, also the recent purchase of land, and the drawing of plans for another Unit in East Boston, as well as the decision of the trustees of the Fund, to erect a Unit in the very near future, in another section of the city.

The rapid expansion of this development justifies a brief resume of the aims and purposes of the Health Unit, a recital of the program being carried on, and its relationship to the physician at large.

The general practitioner in a community in which a Health Unit is functioning or where one is soon to be erected, has a right to ask, "what is this all about?" How far is it going to encroach upon his practice? Is it setting up another agency or dispensary which is going to further narrow his field and opportunities? After all, while no one can question the humanitarianism of the average general practitioner, nor has any one more unselfishly given of his time and efforts for the good of humanity, we cannot get away from the fact that self-preservation is the first law of nature, and when one is engaged in a calling or profession as a livelihood, he has a right to check up on anything or any institution which may in a measure appear upon the horizon as a curtailer of income.

It becomes the fixed duty of those interested in the further development and expansion of

the plan to display no hesitancy in frankly expressing the purpose of this work, and in pointing out that in no way should an institution of this type prove a factor in the diminution of practice and income of the physician. This may perhaps be most logically proven by pointing out the program which has been carried on at the Blossom Street Health Unit, and is similarly being engaged in the North End, and planned in the other Units to be erected.

The Blossom Street Health Unit was fundamentally intended to assemble existing health and, so far as was possible, welfare agencies, both private and public, which were already functioning in the West End section of the city. From its first inception it has emphasized the importance of prevention of disease and has never engaged in any curative program. Whatever services were carried on then, and are now functioning, are prophylactic in type, the object being to promote community health. Health education and prophylaxis is emphasized, and we believe that a program of this type most strongly typifies the ideal health center.

There are housed at the present moment, and being carried on, at Blossom Street Unit, the pre-natal and bedside nursing service, as well as the posture clinics of the Community Health Association. The infant and child hygiene Division program of the Health Department is conducting a series of weekly baby and pre-school age conferences, functioning as preventive clinics and prescribing no medicines. This work was formerly carried on by the Baby Hygiene Association and its successor, the Community Health Association. A dietitian and nutrition worker employed by the Health Department points out to mothers, who bring their malnourished children to the Unit, the value of correct diet and its relationship to nutrition.

Here the sanitary inspector of the Health Department calls, and receives sanitary complaints, endeavoring to solve housing and insanitary problems.

The Health Unit also operates as a decentralized office for the various other services of the Health Department which are of community interest.

It is a call station for the free physician for the poor, a work which is carried on by the Boston Dispensary. Here the Boston Sanatorium nurses make their headquarters, their job and problem being the control of tuberculosis in the district.

The Forsyth Dental Infirmary, with a personnel consisting of a dental hygienist and two dentists, carries on a prophylactic dental program for children of seven years of age and under. This work is supported by the City of Boston, the school nurses bringing in, daily, groups of children of kindergarten and first grade age, to whom are emphasized the value and care of the primary teeth and their immediate relationship to the permanent teeth.

The State Department of Mental Hygiene carries on a Habit Forming Clinic for pre-school age children, this work being invaluable in the proper training and correction of faulty habits of very young children.

Periodic Health Examination Clinics for adults are carried on, with the general practitioners residing in the West End acting in the capacity of an examining staff, and materially assisting in the development of this work. This valuable piece of health education receives their strong endorsement, and it is regarded as a piece of very worth while work which it is believed will be reflected by an increased demand for periodic health examinations, by individuals who in the future will ask that it be done for them by their own family physician.

Strongly linked up with the health program is the welfare work carried on by the Jewish Federated Charities, the Catholic Charitable Bureau, and the Family Welfare Society. From these agencies are recruited many of the contacts who come to Blossom Street for various health services.

The community is given to understand, upon every presentable occasion, that no curative medicine is practiced at the Unit, and that it is in every sense a preventive station, and that whatever may be construed as treatment, is purely prophylactic in type, and is intended to operate as a preventor of disease. Whenever defects are discovered, during functioning services, an endeavor is made to create an interest in the eradication of the apparent defect, and the person is urged in every instance to go to his or her physician for treatment, and is referred only to a dispensary or hospital when there is absolute evidence of the individual's inability to pay for the same. This latter rule is rigidly carried out.

The primary purpose of modern Health Department practice of today is the control of disease, and it has been recognized that health education has become the leading factor in the development of this principle.

Stimulated in Boston, in the direction of prophylaxis, committed to no curative treatment, emphasizing the importance and need of such services which are conducive to good health, the Unit cannot help but serve as an institution which points out to the individual the value and importance of certain necessary measures for the maintenance of good health or the elimination of existing and remediable defects, for the betterment of the individual's physical condition.

This means that teaching preventive medicine to community groups as well as emphasizing the importance and relative value of improving defective physical conditions, carried to a natural conclusion, must increase the practice of the general practitioner in two ways. First, an increased

number of people will be turned over to the practicing physician for the relief of defects and existing conditions. Second, stimulating an interest and demand for prophylactic measures, which the individual may properly receive from his family physician, the general practitioner, whose job it becomes to impress his clientele with his willingness to carry on this service in his office and practice.

To one who questions the purpose and value of this work, and particularly the influence it may have in the reduction of the practice of the physician in a community, because of the supposed chain of new agencies and services brought into a neighborhood, it must be definitely given to understand that a majority of these agencies have already been functioning in the neighborhood where a Health Unit is proposed. Only such new ones are added which appear to be community requirements. It is pertinent to point out, at this time, that it is reasonable and proper for a Health Department to expend the tax payers' money in the most efficient manner in which it may carry out its specific object, namely, the control of disease, and the maintenance of health, in a community, and it should be its constant endeavor to familiarize itself with the most up to the minute manner in which this work may best be carried on.

People desiring services of the various health and welfare agencies in a district where a Health Unit is not established are obliged to thoroughly familiarize themselves with the location of the headquarters, personnel in charge, etc., of the various health, nursing, welfare and social agencies, whose need they require. The representatives in a district carrying on the program of the various agencies needing the assistance and coöperation of a worker representing another group, or desiring to refer a family or individual to another agency, are obliged, when operating in a district not served by a center, to carry on the work by writing, telephone, appointments, etc. It is self-evident that the personal contact of the workers with each other would make it possible to do a speedier and better job than under the old system. The marked advantages and the simplicity incident with a working arrangement of an assembled group housed in one building and carrying on the health and welfare program of a district is evident. This, in short, describes the advantages and virtues of a Health Unit, which may best be summarized by simply saying that it is a vehicle for the promotion of efficiency in health and welfare work.

The properly functioning Health Unit, in addition to promoting correlation in health and welfare work, will develop a healthy community stimulus for preventive medicine, which ought to be reflected in an increased practice for physicians engaged in this particular phase of work. The possibilities of an increased curative practice have already been pointed out. The importance and value of the coöperation and aid of the general practitioner cannot be over emphasized and his aid is solicited and appreciated by the intelligent health officer.

The development of our Health Unit system in Boston made possible by the far sightedness of the Trustees of the George Robert White Fund, who have voted to use the income of that most generous bequest of one of Boston's most illustrious citizens, has focused the eyes of the leading health workers of the United States upon this city. The endorsement of the medical profession is needed to assure the rank and file of the laity who have faith in the wisdom and judgment of their family physician, that this work is worth while. Those responsible for the conduction of the program at the Units desire nothing so much as the counsel and advice of the medical profession in the conduction of the same, and can safely promise the adherence to a program which will in no way infringe upon the practice of the general practitioner whose alliance and coöperation is sought and needed.

## RELATIVE VALUES IN SCHOOL HEALTH WORK*

BY FREDRIKA MOORE, M.D.

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A WELL known pediatrician writing recently about public health work said, in the modern vernacular, "We may not know where we are going or how we are going to get there but we are on the way." True, we do not know "how to get there"; there are so many paths and we are in such a hurry. But let us try to get our bearings and see if at least we are headed in the right direction. This presupposes some knowledge of destination and I think we have that though what we now consider our destination may prove to be only a half-way house.

In its inception, about 100 years ago, modern public health work was a reaction against tremendous loss of life. It received added impetus from threatened shortage of man power for fighting purposes and from the handicap to commerce of certain diseases as bubonic plague and yellow fever. To the English sanitarians belongs the credit of initiating this work of saving lives which has grown to such proportions. But inspiration from them quickly travelled

*Read before the New England Health Institute, Boston, May, 1924.

across the water and there appeared in Massachusetts in 1849, the report of a sanitary commission of which Shattuck was the head. This was an epoch making document. So far-seeing was the vision of the man who wrote it, that only now, 75 years later, is his vision beginning to be realized.

Very naturally, environment was looked upon first as the cause of the high mortality rate, and housing, water supplies, drainage, and the like, became objects of attention to the great benefit of everyone. But the work proceeded blindly for why dirt is dangerous and sunlight a blessing, no one knew until Pasteur came along to explain. After his arrival on the scene the spotlight shifted from the sanitary engineer to the bacteriologist and Public Health entered the second period of its existence which may be called the germ period, the first one being the period of sanitation. What these two periods have done to the mortality rate the following figures show. Where 5 people died of tuberculosis in 1900 only 2 die now. Where 12 babies died in the past only 4 die now. In the 16th century the average age at death was 16-20. A quarter of a century ago, 45 years was the average span of life. Now it has risen to 56.

But sanitation and bacteriology seem to be reaching the limit of their spheres of influence, for death rates have now ceased to fall with meteoric rapidity and the morbidity rate is still sky high. The commission appointed by Hoover to study industrial conditions reported that $1,800,000,000 annually were lost through preventable illness and death. Although the life span is now 56 years, the working span is only 40 years, and the health span 31 years. Degenerative diseases are on the increase. The maternal mortality is far higher than it might reasonably be expected to be. The deaths of infants during the first week of life have not decreased. Moreover, the idea is dawning that merely to keep people alive is not enough, that sickness causes misery and poverty, and that abundant vitality not only makes life more worth living but makes its possessor of greater value to the world. Which is better, to be able to carry on and carry on and still carry on, or to get up in the morning saying, "No ache today, I feel pretty well"? Personal hygiene seems to be the thing which holds out the most hope of achieving this desirable state of well being. In other words, the time has come when people must actively participate in maintaining their health instead of passively acquiescing in having healthful conditions provided for them. So that Public Health is now entering upon a third period, the period of Personal Hygiene with Education as the key-note. Positive health then is the next goal.

But before we can discuss relative values in school health work there are two more things which we must know. One is the relation of health to the rest of life and the other is the relation of school health work to the whole Child Hygiene program.

The past concept of health as a gift of the Almighty to be dispensed or withheld according to whether He wished to chasten or reward has changed to the knowledge that health is obtained or lost by following or disobeying the laws of the Universe. The past idea of health as a thing apart from mind has changed to the knowledge that the physical and mental are indissolubly linked and that the health or disability of one affects the other. Health may to a certain degree be sought for itself for the pleasure that a feeling of well being gives, but its real value lies in the opportunity that it gives for useful living, a value which is lost by over emphasis. We all know the hypochondriac. It has been said that some people pursue health so hard they run by it.

Now as to the relation of school health work to the rest of the Child Hygiene program. Unquestionably, the most important period of a child's life is from conception to the sixth or seventh year but it is also true that for some time *school* health work must receive more than its due emphasis because of the difficulty in reaching the mothers and children earlier. In the schools a bad start in life can be improved because the children are easily accessible and the homes as well, through the children. In undertaking school health work the spending of such undue proportion of time and money that maternal, infant, and pre-school work is neglected must be avoided. Bearing this in mind, also remembering that positive health is our goal and that health is the foundation of life but not the superstructure, we are ready to consider relative values.

We may as well start with one of the most controversial although not one of the most important questions. Should school health work be administered by school boards or by boards of health? The proponents on *either* side have good arguments. Here they are! Those favoring the Board of Health say:

1. That it is the inherent function of this board to control every phase of health work.

2. This board is the sole authority in the case of sanitation and communicable disease. Therefore it controls the environment of the child except for a comparatively brief period each day during certain years of his life and in consequence it should assume health control in every respect. *Some* of the exponents of this argument concede teaching of health to the schools.

3. That the Board of Health has health control over the private schools which the Board of Education has not.

The advocates of school board control assert that:

1. The schools should have jurisdiction, except in communicable diseases, over the children while they are in school.

2. That the influence of the school extends

into the home and does not end at the school doors.

3. That there is more friendly coöperation if the doctors, nurses and other health workers are part of the school system.

4. That it is the function of the school to teach health and the health work should be a unit instead of being divided into sections.

5. That outside of the cities the board of health is usually composed of laymen while there is always a trained person at the head of the school system.

On one point everyone agrees: that no matter which board has control there should be close coöperation between the two. This is not impossible of achievement for, in Massachusetts, the two State Departments of Health and Education are working in the closest harmony. Locally, Massachusetts law provides that in towns the health work shall be under the school committee while cities may choose which board they prefer. There are about sixteen cities which have chosen the Board of Health plan.

A practical solution of the question would be an arrangement for the administration of the school health work by a committee composed of members of both boards with the health director paid by both boards and responsible to this committee. But I cannot see why the question of respective merits must be settled definitely in the same way for every place. It would be carrying standardization beyond its proper bounds.

Standardization is the vogue of the day. Conformity to certain set rules is required of hospitals, records, schools, methods of treatment, methods of production, and many other things. Shall school health work fall into the procession, and shall we attempt to produce standard children? It depends upon the effect of standardization, on the efficiency, to use another catch word of the day, of the different phases of school health work. These are, provision of proper environment, prevention of the spread of communicable diseases, putting children into as good physical condition as possible, development of sound bodies, education in healthful living, and keeping of records. In the provision of a proper environment, there are certain truths established after long experimentation, which are applicable to any school, such as left side lighting, a maximum temperature of 68°, a fixed proportion of window space to floor space. These things should be required in every school but how unfortunate it would be to have the same mould for all buildings and heating plants.

In the prevention of communicable disease, certain procedures are susceptible of standardization, and, as a matter of fact, much benefit would result from more uniformity in the methods of reporting and following up.

The physical examination of the children should be uniform for the sake of equal benefit to all and to make research work possible. In Massachusetts there are 355 communities and there were almost 355 different types of examinations until last fall when a uniform record card was required. Now, if this card is used conscientiously, every child in the State will receive the same kind of an examination. These cards also provide a uniform set of symbols for use throughout the State. This last is more for the sake of ease in making studies than for any other purposes.

The next step after establishing a standard record card is securing a standard scale for grading physical findings. There are difficulties galore in the way of accomplishing this. It means getting a sufficient number of doctors to agree on a diagnosis before standardizing it. Dr. A. examining a set of children finds 2% of heart cases, Dr. B. examining the same crowd gets 10%, and Dr. C. gets 5%. With the question of tonsils or any other defect for that matter, it is just as bad. What is considered reportable in one city is disregarded in another, with considerable injustice to some children as a result. The hopeful thing is that thoughtful school physicians are beginning to realize the need of some standards for diagnosis.

Someone has suggested recently that the school physicians be standardized, or rather that their preparation be. That's all right up to a certain point but it's dangerous to talk too loudly about standardization of human beings. It is true that a certain minimum training plus a public health point of view are necessary for good school medical work but the school physician is not a mere mechanism for ticking off defects. He is a flesh and blood person handling real children, and real parents. Consequently, the right sort of personality is his greatest asset; moreover, a lack of sympathetic understanding can never be compensated for by any amount of training or technique.

If standardization of personality is impossible, the same is true of things involving the personal equation such as health education. To be sure, Health Education has some fundamentals which are universally enforceable. For example, any child can wash his hands before eating, drink the proper amount of water and a few more such things but uniformity in doing and eating ends practically with these, for the needs and opportunities of the country child are not those of his urban cousin. Nor would advice suitable for New Hampshire children necessarily be fit for those in Dakota, while the needs of the children on the water side of Beacon Street are different from the requirements of those in the South End. It would be as impossible for some children to eat leafy vegetables every day as to spend the summer at the North Pole.

The things par excellence which will benefit by standardization are the records. Physical record cards, reports of nurses and doctors, reports of all kinds should follow standard methods and be expressed in standard terms. At

present, many of them are wonderful imaginary and literary efforts without much scientific value. School health work has been under way long enough to furnish valuable information concerning such things as the physical condition of children of various ages and types, the relation between defects and retardation, the average number of corrections obtainable and the health returns that can reasonably be expected from the expenditure of a given sum of money, but this valuable information is not forthcoming because in the first place, there has been no uniform method of recording results and in the second place, because there has been great laxity in record keeping. Those of us who are interested in school health work are sure in our own minds that such work pays but it is unfortunate not to be able to have the cold hard facts with which to prove it to others. By all means, then, standardize records and all other routine or static things. This will save time and add to efficiency but beware of being swept along too far by the wave of enthusiasm on the subject which is just now inundating America, for standardization is a two-edged sword which is as likely to destroy as to protect.

Are children one of the things which can be standardized? I should say of the standard child what the country man at the circus said to his wife as they looked at the giraffe, "There ain't no sech thing" in spite of the fact that for several years we have made of the height and weight tables a Procrustean bed into which the children must be fitted. Even if we really did have a standard child today, if all this health work has any value, he would not be standard tomorrow. It is a common custom to tell children that they have malnutrition, or its opposite, merely on a basis of the height-weight relationship. But many children who are below weight are not malnourished and many who are up to or beyond the so-called normal weight have malnutrition. Of course, the height-weight relation is *one* of the methods of determining the state of nutrition but a true diagnosis of the condition can only be made after a thorough examination of the child. Such things as general appearance, posture, color, appearance of the eyes and hair, condition of the muscles, and amount of subcutaneous fat must be used for diagnosis. Dr. Josephine Baker, in a piece of research along this line, used in examining a group of children three methods of determining the state of nutrition, the height-weight method, the Pelidisi method of Von Pirquet, and the Dunfermlin method (which is practically the complete examination method) and found the Dunfermlin method to be the most accurate of the three.

The Bureau of Educational Experiments in an article called "Health Education and the Nutrition Class," being a report of an experiment in nutrition, gives among other things, the following interpretations of the work:

1. "A comparison of the numbers of underweight in various school populations is not valid, aside from other conditioning factors, unless the measurements are taken at the same period of the year."

2. "The definition of malnutrition or undernourishment as a function of the height-weight relationship, with the acceptance of a 7% standard, is not statistically justified."

The height-weight furore has done a great deal of good. In fact, it has done more than anything else to get the parents and the children interested in health. But now that a favorable opinion *is* aroused it is surely possible to carry on with a little shift of the emphasis to thorough physical examinations and to the normal increment of growth during the year which Baldwin's studies and those being conducted at Harvard are showing to be a better gauge of physical condition than height and weight at any one time. Do not misunderstand me. I am not favoring abolishment of weighing and measuring but a different estimate of their value.

In this connection, physical examinations need careful consideration. A complete physical examination once a year for every child is the ideal which is being held up. What constitutes a complete examination? Is it within the bounds of possibility to realize the ideal? From a school health point of view, a thorough physical includes the following points: general appearance, posture, nutrition, color of mucous membranes, condition of skin and scalp, teeth, nose, throat, glands, heart, lungs, spine, feet, eyes, ears, height, weight, nervous system, and mentality when necessary. The school physician must be responsible for everything except the eyes, ears, height, weight and, perhaps, teeth. Can he give such an examination to every child every year? Let us make a rough estimate.

Say that the physician can give a good stripped to the waist examination in six minutes. That is surely a minimum time and that he averages an hour a day on examinations, besides his other school duties. 10 children an hour, say. That would be 50 children a week or about 1900 a year, which means one physician for every 1900-2000 children. In the cities of Massachusetts, and I presume it is so in the other New England cities, one doctor to 3000 children is considered a good proportion. Moreover, the pay is so pitifully inadequate in most places, that even an hour a day in the schools is out of the question. The public is increasingly willing to put more money into school health work but the time is in the dim distant future when they will be willing to put in a sufficient medical force to examine every child thoroughly, except, of course, in the small town with from 50 to 500 children. At present, the majority of school physicians are doing one of two things. Some are giving each child not an examination, but an inspection, by this method every child has a quick "once-

over." Others are examining certain groups thoroughly and not touching the rest. The groups usually chosen are the first and fifth grades and the children entering athletic sports. It seems to me that of the two methods the latter is preferable.

The children entering school for the first time should be examined for their condition. In that way the defects can be corrected at the outset. The number of the corrections will depend largely on the personality of the nurse and her follow-up. There is one other method of meeting this question of examinations which is used by some towns near Boston. A part time school physician is employed. In addition, at the opening of school a group of physicians goes into the schools and makes the examinations in a short time. Of course this method is necessarily limited to those towns where such a group of properly qualified doctors is available.

Outside of New England, Detroit and Virginia are trying substitutes for medical examinations. Virginia is giving the children a partial examination by the teachers. This includes eyes, ears, height and weight, teeth, and throat. Detroit is trying the experiment of having the teachers screen for the school physicians. The teachers examine for about the same things as the Virginia teacher and if they find any defect refer the child to the physicians. The physicians examine all the children for heart, lungs, and enlarged thyroids and make a more thorough examination of the children referred to them by the teachers. In Massachusetts and perhaps in the other New England states, to make examiners of the teachers does not seem feasible. In the first place, properly to qualify the teachers as examiners would mean giving them a course in diagnosis. This course would have to be more or less intensive according to the degree of accuracy desired. If only the perfectly obvious defects, such as much enlarged tonsils or badly carious teeth are to be reported, short training is all that is necessary. For some of the rural sections where the teacher is a youngster just out of High School or with perhaps a year in Normal School, only a diagnosis of the obvious can be expected. Heart, lung, and spine conditions and malnutrition will be missed entirely.

It might be expected that parents and doctors alike would take exception to such unskilled work. If good arguments for teacher examinations could be advanced, these parental and professional objections might be overcome, but there is no argument except that the children once a year get a rather inaccurate looking over.

Even this would require the outlay of more money than most communities are spending at present. Besides, there are other phases of school health work, some of them even more important than the medical examinations, which are waiting to be developed. The most important of these is health education and the most neglected is the hygiene of instruction. So many people look puzzled when the hygiene of instruction is mentioned that it may be well to explain at once that it is concerned with the length of school sessions, the length of periods, the number and length of recesses, the amount of home work, number of studies which a child should have, the portion of the day's program for each subject according to its draft upon the nervous system, and such like things. Heretofore, the health service has ignored these matters, doubtless thinking them the business of the educators, as indeed they are. But they are equally the concern of the health service since they materially affect the health of the children. The alert family physician frequently finds the cause of anemia or nervousness, or sleeplessness or other ailment of his adolescents in long hours of study outside of school or in too close confinement in school, for even at its best, school life as it is now is abnormal for a growing child. To my mind we are treating criminally our High School children by requiring them to put in so many hours of study a day outside of school at a period of life when nature is putting a great physiological strain upon them. I am not forgetting that there are many parents who permit their children to indulge in a hectic social life but that is another question. The cry from the High Schools is that certain things are required by the colleges, the grammar schools have to live up to the High School and so on ad infinitum. Apparently the place to start the reform is in the colleges. This opens up such an enormous field for discussion that it is the part of wisdom not to venture into it but leave this topic with the suggestion that the school curriculum in a far as it influences the health of the pupils *is* the concern of the health director and that the hygiene of instruction has an importance in the school health work which has been overlooked.

When speaking of instruction the mind naturally turns to the dispenser of it, the teacher, who is the hub of the school universe. Without her coöperation nothing is possible, with it the impossible becomes the possible. Her example teaches more than any number of text books. If she is untidy she cannot teach cleanliness, if she is dyspeptic she cannot radiate the optimism that makes for the right mental atmosphere of the school room. The teacher must be many things in order to produce "mens sana in corpore sano" in her children. Does she have the opportunity to be them? Such an opportunity means proper health education in normal school and college, adequate pay, which will insure proper food and living quarters, a program which leaves a reasonable time for exercise and social life. Business firms are findiny that it pays in dollars and cents to require physical examination of their employees and to give them an environment which will keep them

in good health. It would be sound business from a financial as well as from an educational viewpoint, to admit as teachers only those in good physical condition and then to give them the proper conditions in environment and work.

The teachers must certainly be exponents of health if they are to teach it, and of the whole health program, Health Education is the most important part. If it were decreed that one part only of the program could be retained that part should be Health Education for through it all the rest would be accomplished. Dr. Wood has defined Health Education as "the sum of the experiences in the school and elsewhere which favorably influence habits, attitudes, and knowledge related to individual and community health." He says that "Health Education, through its program, should prepare the young in any community, in any nation, the children and the youth of the world, for all of the opportunities and the obligations of life." Health is not a fad to be taught casually but a vital concept which ought to permeate the whole school curriculum. Luckily the early stage of hygiene teaching has passed away, the "bone age" it might be called when the child was equipped to meet life with the names of the bones of the body and some facts, oftentimes demonstrably untrue, about alcohol and tobacco.

Nowadays, the babies are babbling of diseases. A four-year-old friend of mine the other day was nursing a family of invalid dolls through what she called the "humps" and the "weazles" but in the schools health education is still hit or miss, the hits being made by such teachers as have a particular bent for the subject. The teachers as a whole have had no training in health work such as they have had in geography and history and the health education question will never be settled until we go back to the source of supply of teachers, the Normal School, and give the potential guides of our future citizens a thorough going health training with opportunity to practice what they are learning.

Complete consecutive courses in health teaching are needed, courses which shall lead the child, step by step, from the kindergarten through the High School, and then through the Normal School or college. Beginning with the formation of the right health habits and leading through a more conscious personal hygiene to school, home and community hygiene and general public health. Nor should preparation for parenthood, that great duty which is the last thing heretofore considered in the training of the young, be neglected. These courses cannot be standardized for use alike in all places or they would soon become as fossilized as the old anatomical course. The country children must know how to use what is at hand and the child of the slums how to adapt his tenement to the laws of the universe. There are a few places but not many which are trying out such courses.

The question as to whether the health teaching shall be done by the teacher or the nurse is hardly worth debating. The teacher has the pedagogical training which the nurse seldom has. The teacher, moreover, is the constant companion of the children which the nurse is not. This does not mean, however, that the nurse should do no teaching. Her occasional talks in the school room will give a new impetus to both teacher and children, while she is the only one to teach home hygiene and little mothers' classes. In addition she must be ready to help the teachers with the content of their health work, to speak at Parent-Teacher meetings and to talk to the parents in the homes. So her task is essentially a teaching one and she will accomplish *most* who informs herself *most* along the lines of psychology and teaching methods.

The School Health program is not an entity which sprang full formed from any one head but an imperfect thing which has grown piece by piece, like a child's puzzle. Medical examinations at one time, school nursing following, physical education at another time, nutrition work, oral hygiene, and health education following along,—each of these things as they came were units in themselves with a loose connection, if any at all, with what preceded. The result is confusion, over-lapping, waste of effort and money. The crying need of the moment is a homogeneous school health program.

This can never be consummated until there is a director of school health work who has the same standing as the other supervisors in the school system. In one large city in the middle west the director is an assistant superintendent of schools. Such a person, reducing or enlarging the units to their right proportions, would mold all the dissociated parts of the health work into one piece. The difficulty is that there are in existence very few people trained for such a position. It necessitates a medical training for a background, knowledge of public health and of teaching methods, some understanding of physical education, and ability to organize. However, there is no reason why the law of supply and demand should not hold as good in this situation as it does in the economic world. Therefore, if such a position is made an honorable one, reasonably free from politics, commanding an adequate salary, there will be men and women ready to qualify for it.

But in the meantime, what? Cultivate the material at hand, of course. A very large percentage of school physicians are sufficiently interested in their work to put more time into it and also to prepare themselves better for it if they could afford to, but for $50.00 a year what can be expected from a man or woman with a living to earn? Even $300 a year, which is approximately the average salary in Massachusetts, cannot command a sufficient amount of

time. Many of these physicians are, as a civic duty, as a contribution to their towns, putting in more time than they are paid for but that cannot be demanded or expected as a regular thing. The immediate thing to do is to select the best physician available, pay as much as possible and then demand service in proportion to salary, as would be demanded of any other school official. Make the physician feel that it is his duty to correlate, as far as his time permits, the various phases of the health work.

This leads us to a consideration of expense, of what would, under the conditions laid down at the beginning of the paper, be a reasonable amount per child to expend for school health work,—directly, that is, for indirectly some of the money put into new buildings and grounds adds to the efficiency of the health work. Physical training, although that is health work, will not be considered either, since it is already part of the school curriculum. The school health work is part of the health work of the community as a whole, and it should not, therefore, take so much of the public funds that the rest of the health work would be crippled. The personnel of the school health staff may include a number of people but the irreducible minimum is a doctor and a nurse. In Massachusetts these are required by law, as has been said. A full time health officer rather than a part time one is the desirable thing. In the case of small towns he can be employed by the same combination that employs a superintendent, provided that the average school population is at least 500 children in each town. The nurse can be employed in that same way. A group of towns with 50 to 100 children each would have to be served by part time officers because an impossible amount of territory would otherwise have to be covered.

The minimum salary for such a health officer is $4000 and for the nurse $1500. If we allow one health director and two nurses, a generous allowance, to every 3000 children it would cost $2.33 per child, not a prohibitive amount,—slightly less than is usually paid per capita for fire and police protection, and not out of proportion to the cost of the whole school program per child. The U. S. Bureau of Education gives the following figures as the average per pupil expended in the public elementary and secondary schools for 1920. Current expenses $54.46 plus $9.51 for new buildings, grounds and equipment. To spend a thirty-second of that amount on the thing which is the necessary foundation for everything else is not unreasonable.

The National Child Health Council gives the following staff as a *minimum* that is desirable in a city of 25,000-30,000 people.

| | |
|---|---|
| 1 director of school health work | $ 4000 |
| 1 part time physician | 1200 |
| 1 supervisor of health training and instruction | 2500 |
| 1 mental hygienist and supervisor of ungraded classes | 2500 |
| 3 school nurses $1500-$1800 | 4500 |
| 1 part time dentist | 500 |
| 1 oral hygienist | 1500 |
| | $16700 |

The cost per pupil on a basis of

| | |
|---|---|
| 6000 pupils | $2.78 |
| 5000 pupils | 3.34 |

The Council states that certain cities of this size are now spending more than $5 per child on school health work.

The American public when it becomes enthusiastic about a thing is apt to be carried off its feet. It may feel that way about health before many more years have flown and when that time comes we must not permit health values to become inflated. At present, however, the stock is below par and we must work hard to get its real value before the public. More money will have to be put into school health work before it can take its rightful place in the program, before it can give the children what is their due. The work instead of being a collection of loosely connected parts must be a unit with a properly trained director at the head.

More attention should be paid to the hygienic arrangement and administration of the school program. The medical examinations should receive more careful attention. Weighing and measuring should be taken at their true value. Records should be standardized and more faithfully kept that use may be made of them to learn the results of health work and estimate its value. The most important thing in the entire health program is health education and that it may be properly developed, there must be better instruction in it in the Normal Schools. These, it seems to me, are the things in school health work which should focus attention at the present time.

## SINGLE INCISION FOR BILATERAL INGUINAL HERNIA

BY CARL BEARSE, M.D., BOSTON, MASS.

THE use of a single incision for bilateral inguinal hernia as described by Winter[1], instead of the classical oblique incisions, has been found to be so satisfactory that its more general use is advocated.

The advantages of this incision are that it exposes less subcutaneous tissue, takes less time, and requires a much simpler retentive dressing. It can be used for both the direct and indirect types of hernia, the exposure of the necessary structures being ample.

The one objection that can be offered to this

incision is that, while in the two incision operation one side may become infected and the other side remain clean, with this incision, should sepsis occur, it is more likely that both repaired regions may be involved. This objection is countered with the fact that since only about one-half of the subcutaneous tissue is exposed as compared with the two incisions, infection is less likely. Again, in one of my cases the wound did become infected, and the infection was kept localized to one end of the incision.

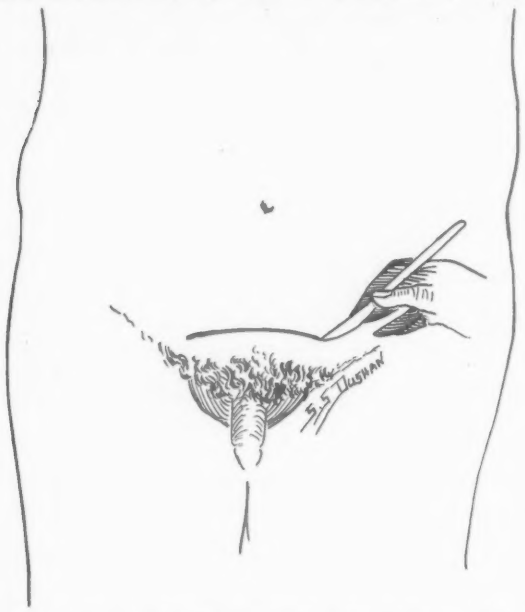

FIG. 1. The skin incision extends across the lower abdomen, from just above one pubic spine to the other, and goes down through the skin and superficial fascia.

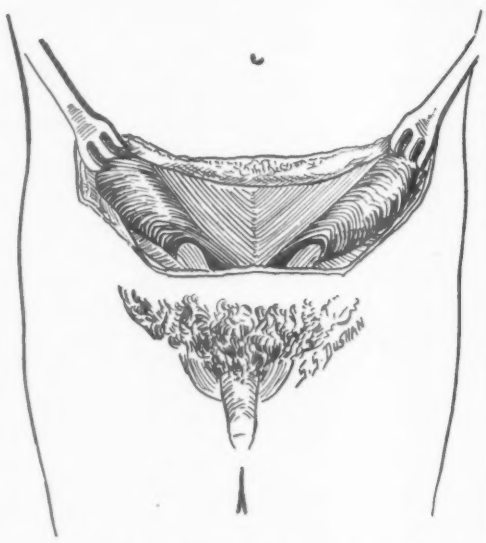

FIG. 2. The skin and subcutaneous tissue have been reflected and retracted, showing the adequate exposure of the necessary structures. From here on the operation is the same as though two incisions were being used.

REFERENCE

1 Winter, D. T.: Simple Operation for Double Inguinal Hernia; One Incision; Some of Its Advantages. J. Med. Soc. New Jersey, 1918, XV, 340.

## PARAPHENYLENDIAMIN DERMATITIS. REPORT OF A CASE

BY RUDOLPH JACOBY, M.D., BOSTON, MASS.

THIS case is being reported because it adds confirmation to Roxburgh's[1] findings, he having just reported a clinical study of eighty-six cases of dermatitis due to dyed fur which have been seen at St. Bartholomew's Hospital, London, during the past two winters. Roxburgh states:—"The question of the exact chemical irritant involved has recently been dealt with at some length by Dr. Allan C. Parsons, of the Ministry of Health (*Reports on Public Health and Medical Subjects*, 1924, No. 27, 'Fur Dermatitis'). He concludes that a partially exodized derivative of para- or meta-phenylendiamin, left in the fur owing to imperfect cleansing after dyeing, is the culprit in the majority of cases."

In Roxburgh's series of cases the furs were worn as neck pieces, wraps, fur collars on cloth coats, or as cuffs; in each instance there was contact with the skin. The sites of eruption were on the neck, chin, face, wrists, and forearms, and the character of the eruption was a blotchy erythema, which usually progressed rapidly to superficial vesication, followed by weeping and crusting and accompanied by sensations of severe irritation and burning.

In his series of cases the time period of the development of the eruption after wearing the furs varied between wide limits; namely, from "at once" to many weeks, depending upon the sensitiveness of the individual. The average time was six and one-half weeks.

The Board of Trustees of the American Medical Association[2] have evidently deemed this an important subject for study and have accordingly authorized a committee to investigate cases of poisoning by paraphenylendiamin in this country.

Case:—The patient, Mrs. P., aged 29, gave no history of previous dermatoses. She purchased a cloth coat with a fur collar, late in 1923. On the first day this coat was worn only a short time. Almost at once she noted a crawling and itching sensation on the neck and an intensely pruritic reddish rash, "the size of a saucer," on the left side of the neck. This area was worse the following day. The eruption subsided in a few days, the coat not having been worn. About four days later she began wearing the garment daily for several days. There was immediate aggravation of the symptoms, the eruption spreading to the chest, arms,

chin, forehead, eye brows, and lips. She consulted her family physician who treated her without relief.

At the time I saw the patient the condition had been of about seven weeks' duration. She exhibited an erythematous eruption, with numerous vesicles and crusting, involving the entire neck and extending slightly above the hair line in the muchal region, also upon the chest, face, chin, and flexor surfaces of the forearms. The lips were slightly edematous and showed a few small vesicles. The lesions were intensely pruritic, and there were numerous scratch marks at the site of many of the lesions.

Etiologically, the probability of a plant or drug poisoning was reasonably eliminated, and a diagnosis of fur dermatitis was made.

The treatment at this time consisted of a soothing lotion and one-quarter skin unit doses of X-rays to the affected areas, and the patient was advised to discontinue wearing the coat.

All the lesions had almost disappeared after three weeks, and at about the end of the eighth week she again wore the same coat. Within a few days the same skin manifestations, more severe and assuming an eczematoid character, appeared involving the same areas. This attack was quite refractive to treatment but again subsided entirely after several weeks.

I conferred with Dr. Allen Winter Rowe, the head of the Department of Chemistry at the Evans' Memorial Research Department of the Massachusetts Homeopathic Hospital, who examined the fur for arsenic and found it to be absent. It occurred to him that paraphenylendiamin was used to produce the color taupe on fur, and that possibly this might be the cause of the difficulty.

Dr. Rowe submitted a specimen of the fur to Dr. S. P. Mulliken of the Department of Organic Chemistry at the Massachusetts Institute of Technology. His examination, in which he employed the tests described by E. Erdmann[3], showed the presence of Ursol D. (paraphenylendiamin). In his report, Dr. Mulliken states that Erdmann is of the opinion "that fur thus dyed would probably be quite harmless if it were thoroughly washed after dyeing."

The fact that there has been no recurrence of the skin symptoms since the patient discarded the coat, together with the chemical findings, leads to the conclusion that this is a case of dermatitis from paraphenylendiamin.

REFERENCES

1 Roxburgh, A. C.: Eighty-Six Cases of Dermatitis Due to Dyed Fur. Brit. Jour. of Derm. and Syph., 37:126, Mch., 1925.
2 Dyed Fur Dermatitis. Jour. Am. Med. Assn., 84:13, Mch. 28, 1925, p. 987.
3 Erdmann, E.: Zeit für Angew. Chemi, 18, 1378 (1905).

# MEDICAL PROGRESS

## PROGRESS IN THE STUDY AND TREATMENT OF CARDIOVASCULAR DISEASE IN 1924

BY HOWARD B. SPRAGUE AND PAUL D. WHITE

(Continued from last week)

### III. SIGNS AND SYMPTOMS

*Murmurs*—A murmur of considerable interest is the functional aortic diastolic murmur. Morse (*Arch. of Ped.* 1924, 51:559) describes such a murmur which is found in children, not very infrequently in severe anemia, and transmitted like an organic murmur. A pistol shot in the groin is heard in similar cases, more commonly in infancy. This sign is presumably due, he believes, to lowered vaso-motor tone as it may be heard also in pneumonia and typhoid fever.

Barbosa (*Brazil-Medico*, 1924, 1:63) publishes a description of 6 cases in which he believes a myocardial aortic insufficiency was present. He says that a small lesion of the valve by extension from the aorta allows the regurgitation. At autopsy as there is no pressure of a blood column the fibrous ring and muscle fibers do not appear stretched.

An attempt is made by Reid (*Jour. Am. Med. Assoc.* 1924, 82:1040) to differentiate the "true" and "false" presystolic murmurs. He shows that there is a crescendo murmur ending in the first sound which does not disappear with auricular fibrillation, which is really a systolic regurgitant murmur; and another much rarer, presystolic murmur due to auricular contraction.

Stahl & Entzian (*Ztschr. f. Klin. Med.* 1924, 100:232) discuss the rare intra- and extracardiac "bruits de moulin." They report the case of a man who received a blow on the chest but kept on working. After 3 hours there was a sound from his cardiac region, audible throughout the room, which lasted for 4 days and a friction rub at the base continued 2 days longer. Experiments on dogs showed that an injection of 20 c.c. of air into the jugular vein produced a bruit audible at 50 cm. for 6 hours. They believe these murmurs are caused by an injury to a vein (probably a posterior bronchial) permitting air to enter the right heart

Air introduced into the pericardium of a case with tuberculous pericarditis also gave a bruit which was less abrupt. Mucci (*Policlinico*, 1924, 31:1161) reports a case in a man injured in the chest by a fall. There was tympany over the heart and the bruit lasted 2 days.

Gerhartz (*Med. Klin.* 1924, 20:707) has timed the murmur of aortic stenosis and has found that the period between the beginning apex impulse and the systolic murmur averages 0.087 second in length. Bonnin (*Médecine*, 1924, 5:426) describes apical systolic murmurs after exercise which he believes are extracardial. Kahn uses the procedure of tilting the stethoscope so that one part of the rim rests on a rib and the other part in an interspace, which he says obliterates false thrills. (*Jour. Am. Med. Assoc.* 1924, 82:1781)

*Dyspnea*—Means (*Medecine* 1924, 3:195) has completely reviewed the literature and written a monograph on the subject of dyspnea. Fraser discusses some aspects of cardiac dyspnea (*Proc. Roy. Soc. Med.* 1924, 17:13). Wassermann (*Wein. Klin. Wchnschr.* 1924, 37: 889) describes a case of dyspnea occurring before or during an otherwise typical attack of angina. He believes it is due to a bulbar reflex originating in the aorta, the centripetal path of which is in the depressor nerve.

*Pain*—Levy has considered cardiac pain from a standpoint of etiology. (*Med Clin. No. Amer.* 1924, 8:71.) He describes the varied conditions causing cardiac pain and gives an outline of groups into which practically all cases can be placed. The main classes are (1) Heart failure (myocardial exhaustion). (2) Hypertension. (3) Aortitis. (4) Aneurysm of the aorta. (5) Rupture of the aorta. (6) Coronary artery disease. (7) Tobacco poisoning. (8) Pericarditis. (9) Cardiac neurosis. (10) Pathogenesis undetermined. Of 100 consecutive cardiac patients, 24 gave pain in the region of the sternum or left breast as the presenting symptom. The cases were as follows: heart failure—8, cardiac neurosis—6, coronary artery disease—6, aortitis—2, aneurysm—1, tobacco poisoning—1.

*Differential Diagnosis of Coronary Occlusion and Cholelithiasis*—Faulkner, Marble & White (*Jour. Am. Med. Assoc.* 1924, 83:2082) have undertaken an important study in differential diagnosis between gallstones and occlusion of the coronary arteries. They have compared 30 autopsied cases of coronary occlusion with 30 cases of cholelithiasis proved by operation. Their conclusions are as follows. (1) Complete occlusion of a coronary artery was found in about 1.5 percent of necropsies at the Massachusetts General Hospital. (2) The clinical picture may resemble cholelithiasis but usually not. (3) The more important distinguishing features are (a) Age—the youngest patient with coronary occlusion was 42; 12 of the gallstone cases were younger than this. (b) Sex—coronary occlusion was 4 times as frequent in males as in females; exactly a reverse condition was found in gallstone cases. (c) Previous history—a story of angina is strong presumptive evidence for occlusion. (d) Duration of illness—coronary cases, except those who died instantly, had an average life of 6½ months. After the onset of symptoms, gallstone cases had an average duration of 28 months before operation. (e) Pain—pain may be confined to the thorax or abdomen in either. Radiation to the arms is in favor of occlusion, to the back of gallstones. Occlusion is often accompanied by a feeling of constriction and the pain is constant, whereas in gallstones the pain comes in attacks. (f) Other symptoms and signs—evidences of congestive failure are important in the diagnosis of occlusion. Jaundice may occur in either but more commonly with gallstones. Poor heart sounds and alternation of the pulse suggest occlusion. (g) Electrocardiogram—This may show intraventricular block or changes in the T wave in Lead 2 in occlusion.

Willius (*Ann. Surg.* 1924, 79:524) gives the essential points in differentiating angina pectoris from surgical conditions of the abdomen and emphasizes the vital importance of a careful history.

*Laryngeal Nerve Paralysis*—Notkin (*Arch. Int. Med.* 1924, 33:71) has adequately covered the subject of paralysis of the recurrent laryngeal nerve in mitral stenosis. He has reviewed the 74 cases in the literature and reported one more. Several other cases have been reported during the past year.

*Heart Size*—Wells & Gordon have published a report of a case in which the heart was 10.6 cm. in diameter during a period of circulatory collapse from what appeared to be intestinal obstruction, and 13.1 cm. in diameter after recovery. (*Bost. Med. & Surg. Jour.* 1924, 190: 831.)

*Pericarditis*—A paper on fibrous mediastinopericarditis appeared this year by Pollitzer (*Med. Klin.* 1924, 20:881). He disregards the classical signs such as pulsus paradoxus, systolic retraction of the chest, etc. He claims that the main finding is universal edema, more in the eyelids and lower legs with pain. A violet cyanosis of the legs in young persons is almost pathognomonic. There is slight icterus and enlarged liver. One important feature is the small heart. The chest is flat in front and drops suddenly to the axilla. Rehn's pericardiotomy is the only treatment. He believes the trouble starts in the centrum tendineum of the diaphragm, the cross road of the thoracic and abdominal lymph systems. (It is probable that this description fits only a very few cases of this syndrome.)

*Pulse in Aneurysm*—Kahn (*Med. Clin. No. Amer.* 1924, 8:347) reviews the work of other observers in regard to pulse differences in aneurysms of the aortic arch. According to

Lamb inequality occurred in 13 out of 92 cases; in Hare's series, in 13 out of 570. Williamson found a difference in a majority of 30 cases and said that a difference of more than 20 mm. suggested aneurysm. It is interesting to note in this connection that Fischer (*Klin. Wchnschr.* 1924, 3:784) made 270 observations on 80 unselected patients and found a difference between the two sides of the body to be the rule. The pressures were the same in both arms in only 13 percent and even they showed varying differences on further examination. Variations occurred in systolic and diastolic pressures and in both combined.

*Abdominal Signs of Cardiac Failure*—Brooks (*Ann. of Clin. Med.* 1924, 2:357) calls particular attention to the early gastro-intestinal complaints in heart failure and outlines the value of small meals at frequent intervals, laxatives and high colonic irrigation. He mentions the fact that in cases with edema quinin 7-15 grains five times a day is sometimes an effective diuretic.

### IV. BLOOD PRESSURE

The study of blood pressure and especially hypertension has been particularly enlightening during the past year. Very valuable additions have been made to the etiology of increased arterial pressure.

*Normal Blood Pressure*—Rucker & Connell (*Am. Jour. Dis. Child.* 1924, 27:6) have studied the blood pressure in newborn infants by means of a narrow arm band and have found that the mean systolic pressure was 55 mm. at birth and the mean diastolic was 40 mm. Systolic pressure increases much faster with age than diastolic. Pressure varied with the total length of the infant.

Faber & Mackeprang (*Hospitalstid.* 1924, 67: 193) compared the pressures of 1000 normal men of 20-50 years of age and found that the systolic level varied from 90-160 and increased in direct ratio with weight.

*Hypertension-Etiology*—The work of Major & Stephenson at Johns Hopkins has been directed toward the isolation of pressor substances in the blood. In one communication (*Bull. J. Hop. Hosp.* 1924, 35:140 & 186) they state that methyl guanidine is a product of metabolism and causes a marked and sustained rise in blood pressure. Experiments showed that guanidine, methyl and dimethyl guanidine produce a marked and prolonged rise in blood pressure with slowing of the heart and respiration. The rise in blood pressure is promptly abolished by $CaCl_2$ alone or with KCl. Major (*Jour. Am. Med. Assoc.* 1924, 83:81) found that hypertensive patients show marked diminution in the excretion of guanidine bases. Several febrile patients showed an increase as did one patient with chronic nephritis and normal blood pressure. Both essential hypertension and chronic nephritis with hypertension show a decreased excretion. Guanidin bases are in the group of compounds classed under "non protein nitrogen." Urea, uric acid, creatin and creatinin do not have this pressor effect.

Another line of investigation has been followed by Cash (*Bull. J. Hop. Hosp.* 1924, 35: 168). He has made experiments on dogs in an attempt to produce hypertension by reduction of renal substance. His work shows that a rise of both systolic and diastolic pressures results in most cases, and in all cases a rise of about 27 mm. of mercury in diastolic pressure occurs, when (a) total kidney substance is reduced at least 50 percent (b) and in addition a portion of the kidney deprived of circulation be allowed to remain in situ. Extensive necrosis of renal tissue alone as by widespread, bland, infarction of one kidney or ligation of one branch of the renal artery has not caused any rise in blood pressure, nor has unilateral nephrectomy. A reduction of 25-85 percent of renal tissue does not change the N. P. N. or blood chlorides. A reduction of over 50 percent causes impairment of phenolphthalein excretion. Anderson (*Jour. Exper. Med.* 1924, 39:707) found that in rabbits the removal or destruction of about 70 percent of the kidney tissue did not produce hypertension even when prolonged renal insufficiency resulted.

The striking importance of heredity as an etiologic factor in hypertension has been well brought out by O'Hare, Walker & Vickers (*Jour. Am. Med. Assoc.* 1924, 83:1). In an analysis of 300 cases they found it one of the most important elements to consider, and they write that hypertension coming in the 4th or 5th decade may give warning by symptoms as early as the second decade. They advise protecting such persons from stress and strain in early life in an attempt to prevent the development of hypertension. In another paper O'Hare & Walker have considered the influence of early infections upon the production of hypertension. They studied 400 normal cases and compared them with 400 cases of hypertension. The incidence of measles was the same, scarlet fever was somewhat more frequent in hypertensives, diphtheria was commoner in the normal group. These differences were only slight. The diseases more frequent in the combined hypertensive group (vascular plus chronic nephritis) than in the normals, were diseases of the teeth and gums, typhoid fever and acute and chronic nephritis. Of the group more common in the controls the only impressive one was syphilis—three times as common in normals as in hypertensives. (*Bost. Med. & Surg. Jour.* 1924, 190:968.)

Much emphasis has been laid on the importance of sclerosis of the small blood vessels in the production of increased vascular tension. O'Hare & Walker (*Arch. Int. Med.* 1924, 33:343) have stated that there is a close correlation between sclerosis of the retinal vessels, which are

typical of the smaller vessels throughout the body, and the degree of hypertension.

Moschcowitz (*Arch. Int. Med.* 1924, 33:566) admits that the immediate cause of hypertension is unknown but brings forward the importance of "peripheral resistance." He refers to the sclerosis of the pulmonary vessels in mitral stenosis and states that there is evidence to show that "congenital peripheral resistance," as in stenosis of the isthmus of the aorta or a narrow aorta, may be the cause of hypertension, arteriosclerosis and nephritis, and may account for some juvenile cases.

Bramwell (*Quart. Jour. Med.* 1924, 67:225) has found that between the ages of 10 and 60 the elasticity of the arteries is halved. The relation between age and velocity of the blood suggests that the increase in systolic pressure and in pulse pressure with age is a compensatory mechanism for enabling the heart to maintain its output.

The relation of age to the size of the heart has been carefully worked out by Bell & Hartzell (*Jour. Med. Res.* 1924, 44:473). They conclude that "the age increase in the average size of the heart after the 4th decade is due largely to the inclusion of cases of hyperpiesia, since it is much reduced when known cases of this are excluded. The increase from the 3rd to the 4th decade is probably due chiefly to increase in body weight."

Oppenheimer & Fishberg (*Arch. Int. Med.* 1924, 34:631) review the literature on the occurrence of hypertension with suprarenal tumors and report a new case.

*Physiology*—Feil & Katz (*Arch. Int. Med.* 1924, 33:321) studied 24 patients with hypertension and found a shortening of systole in half of the cases associated with signs of cardiac failure. They suggest that this may be an expression of an altered response of the heart to overloading. Edwards, Page & Brown (*Proc. of Soc. of Exp. Biol. & Med.* 1924, 21:169) found in dogs that lowering the blood sugar by insulin lowered the blood pressure. Block & Oppenheimer (*Arch. Neur. & Psych.* 1924, 11:444) made a comparative study of intraspinal, blood, and intraöcular pressures. They find that no individual parallelism exists. In general high and low pressures of one tend to be associated with similar conditions in the others, but in certain diseases essentially local conditions may cause high pressure of one without affecting the other forms.

*Prognosis*—The prognosis of the heart in hypertension is to be judged, according to O'Hare & Walker (*Bost. Med. & Surg. Jour.* 1924, 190:683), by (1) the amount of strain measured by the diastolic pressure, (2) the condition of the coronaries, and (3) the condition of the myocardium.

*Hypotension*—A review of the conditions in which hypotension exists has been given by Friedlander (*Jour. Amer. Med. Assoc.* 1924, 83:3). He says that a systolic blood pressure of under 110 mm. is compatible with health in some persons. He suggests that persistently low blood pressure may be due to a chronic poisoning of the capillaries by histamine or similar substances.

### V. X-RAY

*Heart Size*—Several papers have appeared in the past year on the subject of heart size. As they are mainly technical they will only be mentioned. Hodges & Eyster (*Am. Jour. Roentgen. & Rad. Therap.* 1924, 12:252). Levi (*Jour. Radiol.* 1924, 5:41), and Eisen (*Radiol.* 1924, 3:225) have considered the subject. Perkins (*Radiol.* 1924 2:367) made observations on 21 normal children from 2 months to 14 years and found that the ratio of chest diameter greater than twice heart diameter holds good in them as in the adult. Children under 3 years have a globular heart.

*Pericardial Effusion*—Holmes (*Jour. Am. Med. Assoc.* 1924, 83:1745) considers the X-ray findings in cases with fluid in the pericardium. In such cases (1) there should be enlargement of the heart shadow with a tendency to assume the triangular or "water bottle shape"; (2) there should be obliteration of the normal cardiac outline, with inability to distinguish the pulsations of the auricles from those of the ventricles; (3) when fluid is present, there should be a change in shape with change of position; (4) in the presence of adhesions, the respiratory movements of the heart may be limited, and its outline irregular. In discussion P. D. White stated that pericardial effusion often appeared rapidly and might be wrongly diagnosed as acute dilatation of the heart. (By an error in publication acute dilatation of the heart had been stated by him to be a common occurrence. As a matter of fact it is distinctly rare.) Perkins & Lattin (*Am. Jour. Roent. & Rad. Therap.*, 1924, 12:171) also review the radiologic findings in pericardial effusion.

*Mitral Stenosis*—Gäbert (*Fortschr. a. d. Geb. d. Röntgenstrahlen*, 1924, 32:410) uses an opaque substance in the oesophagus and by noting its displacement he judges the degree of enlargement of the left auricle. He regards this useful in the diagnosis of mitral lesions.

*Miscellaneous*—Calcification of the heart has been diagnosed during life by means of X-ray and is discussed by Scholz (*Jour. Radiol.* 1924, 5:131).

Cutler & Sossman (*Am. Jour. Roent.* 1924, 12:312) review the literature of calcification of the pericardium. Only 13 cases had been diagnosed during life before 1923. They describe 3 more with calcification of the endocardium, myocardium and pericardium. The findings in 2 autopsies are given. The total number of cases of calcified pericardium diagnosed during life is now 17.

(Continued next week)

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY
RICHARD C. CABOT, M.D., AND HUGH CABOT, M.D.
F. M. PAINTER, A.B., ASSISTANT EDITOR

## CASE 11181

### MEDICAL DEPARTMENT

A railway engineer of forty-eight was brought to the Accident Room unconscious. A policeman said the patient suddenly dropped while at work in the dynamo room of the railway and was picked up in the same condition in which he entered the hospital. Later a friend said that the patient had been working all the time for twenty years and had always been well. He drank a little ale and beer. After dinner the day of admission he had some discomfort.

Examination showed a very obese man with cyanotic face and noisy, labored, jerky respiration. There was some blood on his lips and mouth. His tongue was bitten in two places. His breath smelt alcoholic. A few coarse râles were heard in the lungs in front. The back was not examined. The apex impulse of the heart is not recorded. The left border of dullness was about at the nipple line. There was no enlargement to the right. A systolic murmur was heard all over the precordia. The aortic second sound was accentuated. The pulses were regular, of very full volume and very high tension. The artery walls were sclerosed. The pupils were small, equal, and did not react. The other reflexes were normal. Supraorbital pressure was negative. There was no edema. The temperature, pulse and respirations are not recorded. The specific gravity of the urine was 1.013. The urine showed ½ per cent. of albumin, no sugar, many hyalin, fatty and coarse granular casts, often with renal cells adherent, many renal cells, often fatty, and considerable free fat.

While the examination was being made the breathing stopped. It was soon restored by artificial respiration and oxygen. About fifteen minutes later it again ceased. The patient vomited several times, brownish material with the odor of beer. He was catheterized, bled about a pint, and infused with normal saline while the bleeding was being done. His condition grew steadily worse, he became very cyanotic, and died in less than two hours after his admission.

### DISCUSSION

#### BY DR. RICHARD C. CABOT

#### NOTES ON THE HISTORY

We do not know how long before he was brought here this coma came on, but presumably it was the same day. It seems to be all within twenty-four hours. There is no previous history and nothing to guide us at all until this very day of entrance.

Presumably he had had a convulsion, but the nature of the convulsion we cannot infer merely from the fact that he had bitten his tongue. Epileptic convulsions are no more likely than any others to cause that.

In regard to inferences from his alcoholic breath we have to be careful. I have seen a number of conclusions that coma was alcoholic because the breath smelt alcoholic. There are two other possibilities: (1) that the man had something to drink and then became comatose, from diabetes or any of the other diseases that bring about coma. (2) The other possibility is that the man became conscious of illness before unconsciousness and was given something as a "pick-me-up," as is so often done, so that the alcohol is still on the breath when we see the patient. The first thing to be suggested to our minds, that the coma is due to alcohol, is not very probable, because somebody probably would have come to that conclusion before he got here.

Almost every comatose case here shows râles in the chest without any obvious connection with the heart. It is one of the points I have always insisted on. I do not understand it. It does not mean that the heart is failing. It does not mean that the coma has any relation to the heart. But practically every type of deep coma has râles in the chest. I have seen it a good deal in sunstroke, for instance. It is verified post mortem. The lungs are wet in these cases as a rule, I do not think anybody knows why.

The back was not examined, but would have shown the same râles undoubtedly.

The pulses do not help us much in a comatose case, that is with a presumable brain lesion which in itself aside from any cardiovascular lesion might have given him high blood pressure.

"Supraorbital pressure negative." All that means is that it is a deep coma. Supraorbital pressure causes a sharp pain, and most people will at least wince or squirm even though the coma is pretty serious.

#### DIFFERENTIAL DIAGNOSIS

Practically all we have here is that a man of forty-eight became comatose and died. That is, we have nothing that I see to work on except his age, the sudden coma, and death. Physical examination so far as I see does not tell us anything. What, then, is the commonest cause of

coma in a man of forty-eight? Of course we have cerebral hemorrhage. He was a little young for it. Still I do not think there is any question that when coma comes at forty-eight that is the commonest cause.

One-half per cent. of albumin is a very vague measure, but it means a great deal. If they said "an awful lot" we should say "That is not scientific," but neither is "one-half per cent." scientific. "'No sugar' is of some value; this is not presumably diabetic coma. Diabetic coma has occurred in a person who had no sugar in his urine, but it is pretty rare.

Have we any good reason to say it is nephritis because of the big percentage of albumin? I should not say we have. We always get albumin in the urine in these cases, and although we do not expect so much as this—my impression here is of more albumin than we usually see—still I do not think we can infer anything. We have no other evidence of nephritis here; his heart is not enlarged, there is no edema, he had no previous symptoms. People do not ordinarily go into uremic coma without previous symptoms. So it does not seem to me that we can put any weight on that percentage of albumin.

They do put a good deal of emphasis on fat, and fat does not show up much ordinarily in non-nephritic renal lesions. I should say that the fat might strengthen the possibility of nephritis.

But even if there is nephritis I think there is something else in the brain. I think the suddenness of this death is not explicable by nephritis alone. What other comas ought we to think of? This was October, therefore there was no sunstroke. He had no temperature. That would prove it. We have no reason to suspect poisoning of any sort. We have no evidence of any infectious disease as streptococcus or meningitis, nothing to point to brain tumor that I can see, or to brain abscess. He had a convulsion which might well be uremic and is not very likely to come with a patient who has nothing but a cerebral hemorrhage. Cerebral hemorrhage does have convulsions, but usually unilateral, not bilateral. People with unilateral convulsions are not so likely to bite their tongues.

I think that is as far as I can go. I should say the best guess is nephritis with cerebral hemorrhage, both.

A PHYSICIAN: Would a ventricular hemorrhage be any more likely to give a generalized convulsion and leave his reflexes about as they were?

DR. CABOT: I do not think I know much about that. The only impression I have in my mind about ventricular hemorrhage is that I have seen some cases with generalized rigidity, increased reflexes and spasm. I do not remember it with convulsions, and that is about all. Have you any hunch on this case, Dr. Smith?

DR. W. D. SMITH: Not a bit, except that I have seen a man with ventricular hemorrhage shown, with bloody spinal fluid, who had exactly that condition but got well. He had a general convulsion. His reflexes were normal, then he got rigidity as you said.

A PHYSICIAN: It is a little queer to have a man with such deep coma who has no pain reflex and yet has ordinary reflexes. One would think such deep coma would abolish reflexes.

DR. CABOT: Yes, I should think so. As to cerebral hemorrhage without paralysis, I should say one of the causes is hemorrhage into the ventricle, another is hemorrhage into the base of the brain, cerebellar, and the third hemorrhage into the extreme frontal regions.

So I should say chronic nephritis and cerebral hemorrhage.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Uremia.
Chronic diffuse nephritis.
Hypertrophied heart.

DR. RICHARD C. CABOT'S DIAGNOSIS

Chronic nephritis.

Cerebral hemorrhage.

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

(Essential hypertension.)

2. *Secondary or terminal lesions*

Hypertrophy and dilatation of the heart.
Chronic passive congestion of the lungs.
Soft spleen.
Hypernephroma of the right kidney.
Foci of fat necrosis in the pancreas.

3. *Historical landmarks*

Cholelithiasis.

DR. RICHARDSON: I am sorry I cannot tell about the head.

DR. CABOT: So we can continue to believe—and nobody will ever prove us wrong—that this man had a cerebral hemorrhage.

DR. RICHARDSON: The gastro-intestinal tract was negative. There was a slight excess of fluid in the pleural cavities and there were a few fibrous adhesions on the right side. The lungs showed chronic passive congestion. The tissue generally was somewhat leathery and dark brownish red.

DR. CABOT: "Leathery" points to something that has been there for some time, doesn't it?

DR. RICHARDSON: It points to fluid and congestion.

DR. CABOT: But owing to something that has been there more than a few days?

DR. RICHARDSON: "Leathery" means that to the touch the tissue of the lung does not have its usual sponginess, but is somewhat firmer and more leathery in consistence than the solid or meaty lung tissue which means consolidation. Edematous lung tissue may have the leathery consistence, but it is best marked in chronic passive congestion.

DR. CABOT: I was trying to get the data on which your "chronic" is based.

DR. RICHARDSON: The heart weighed 694 grams. That is considerably hypertrophied. The myocardium was thick, the cavities dilated. There was nothing within the heart to account for the hypertrophy. The aorta was negative.

The kidneys showed some arteriosclerosis of the vessels and a few scattered foci. The only additional note about the kidneys is that in the pole of one there was a large tumor which was considered to be a hypernephroma.

DR. CABOT: But it did no harm presumably.

DR. RICHARDSON: It might be said that he had a metastasis from this tumor in his head.

Cultures from the heart blood were negative, both aerobic and anaerobic, and the culture from the liver was negative.

This was a condition then of hypertrophy and dilatation of the heart with nothing within the heart or outside the heart to account for the hypertrophy. In those days we called it idiopathic hypertrophy. I suppose today we should call it hypertension.

DR. CABOT: What are the chances of a person having one metastasis in his brain and nowhere else from hypernephroma?

DR. RICHARDSON: They are pretty small, but I remember one case. It is a far cry, however, and from the picture here I should believe that he had a cerebral hemorrhage.

DR. CABOT: This is an interesting case to me because of the size of the heart,—a very big heart with no nephritis and no arteriosclerosis and nothing else in the heart, pericardium or anywhere to account for it. So that we are driven back to the hypothesis, which is perfectly tenable I think, of the so-called "essential hypertension," hypertension of unknown cause, itself producing cardiac hypertrophy.

Of course if we had measured the blood pressure here we should not have been much better off, because the cerebral hemorrhage, if he had it, would have reduced it. We should not be able to say, as we should like to say, he has had a high blood pressure for a long while. Because I do not believe he died of his heart.

DR. RICHARDSON: The question was raised in those days about the action of an excessive amount of adrenal tissue as a cause for hypertrophy and dilatation of the heart.

DR. CABOT: But we do not see high blood pressure in nephroma. There is no reason to think of that, as I see it.

## CASE 11182

### MEDICAL DEPARTMENT

An American salesman of sixty-one entered January 30 complaining of enlarged spleen and loss of weight, strength, and vitality. His mother died of heart trouble. One child died of tuberculosis and influenza at the age of three. The patient had always been well and athletic. At forty-two he had typhoid fever. He urinated once at night.

Two years before admission in trying to recover from some financial losses he worked very hard fourteen to sixteen hours a day and began to lose weight at the rate of about two pounds a week, dropping by the end of a year from about 200 to 160 pounds. Two years ago he noticed a mass in the left side. During the two years he felt he had aged more than in the previous ten. He had lost strength, was troubled at times with nerves, and did not have his usual energy. Fourteen months before admission he had a short attack of influenza during which his physician found that he had an enlarged spleen. Since that time he had felt well except for the conditions already described until two days before admission, although he believed he felt his transverse colon across his spleen. He believed the spleen to be only slightly larger than it was two years earlier. He had had but little dragging pain, but that had grown slightly more during the past few months. January 28 he felt his bowels were not acting and he was suddenly seized with a dull heavy steady pain. There was a mass over the colon. An enema gave relief and the pain disappeared with the mass after twelve hours.

Examination showed an active, intelligent, much emaciated man with loose dry pale skin and pale mucous membranes. The left nostril showed evidence of blood. The septum was markedly deviated to the left, partially occluding the left nostril. The chest expansion was slight. The aortic second sound was equal to the pulmonic second. The heart was otherwise normal. The artery walls were palpable, the brachials tortuous. The blood pressure was 105/55 to 120/70. The abdomen showed an enormously enlarged spleen extending nearly to the pubis, with a palpable and visible notch on the medial border. The legs showed slight edema. The pupils were irregular, but reacted normally.

The temperature was 98° to 103.1°, the pulse 74 to 130. The respirations were not remarkable. The amount of urine is not recorded. The specific gravity was 1.018. At the single examination there was the slightest possible trace of albumin and the sediment showed four or five leucocytes per high power field. The hemoglobin was 65 to 60 per cent. There were 190,000 to 61,600 leucocytes, 56 to 87 per cent. polynuclears, 2,800,000 to 2,440,000 reds, moderately

achromic, with some variation in shape at one examination, not remarkable at the second. The first showed a great deal of neutrophilic debris and cell destruction. A Wassermann was negative. The non-protein nitrogen was 50 mgm. The stools were negative.

In consultation February 2 Dr. A. V. Bock reported, " . . . . . Mass (spleen) is hard, smooth and non-tender. Liver down 7 cm. in nipple line. . . . Smear, 27.5 per cent. polynuclears, 15.5 per cent. atypical polynuclears, 1 per cent. lymphocytes, 1 per cent. eosinophils, 11.5 per cent. mast cells, 17 per cent. myelocytes and 26.5 per cent. unclassified. Platelets not much increased. Red cells show varying degrees of achromia."

By February 5 two short wave X-ray treatments had been given over the spleen. The temperature that night was believed to be an X-ray reaction. It was decided to give no more radiation for a month. February 6 the tonsils were inflamed. February 8 there was marked soft watery edema, tenderness and redness of both left eyelids, with a few white abscesses along the margin of the upper lid. An eye consultant thought there probably was a beginning erysipelas and advised against operation. February 9 another oculist advised incision and drainage of the left orbital abscess. This was done. Two days later the erysipelas was spreading over the whole of the face and neck. The patient was incoherent and incontinent. February 12 he died.

## Discussion

### by dr. maurice fremont-smith

### notes on the history

It is very rare that overwork even for very long hours causes a man to lose as much weight as this unless he is worried and not eating. Such loss of weight is usually due to disease.

One point of interest is that the physician who examined this man with "influenza" did a complete physical examination and therefore discovered the spleen. The second point is that finding the spleen he evidently did not do a blood smear,—something that will save many mistaken diagnoses both in acute conditions and in chronic.

When a large spleen is encountered what should one think of? The very large spleens occur in the leukemias, and to a little lesser extent in malaria. In chronic tropical malaria one may have spleens coming down to the crest of the ilium. Myelogenous leukemia causes the largest spleens. In lymphatic leukemia the spleen is enlarged, but not so big as in myelogenous. Easily palpable but not tremendous spleens occur in splenic anemia, hemolytic jaundice, cirrhosis. Smaller spleens yet—spleens that can be palpated and yet are not very much enlarged—occur in Hodgkin's, in recurrent fever, bacterial endocarditis, polycythemia, and sometimes in the acute infections. Sometimes one can palpate a spleen in pneumonia, but usually in acute infections there is enlargement of spleen at necropsy not demonstrable during life.

### notes on the physical examination

There is nothing in the history with regard to nosebleeds. It is an interesting physical finding.

The urinary findings were normal.

With a spleen of this size and with the large polycytosis here, we know that we must have a leukemia. The polynuclear count alone, if correct, would make us a diagnosis of myelogenous as against lymphatic leukemia. The only difficulty in making the diagnosis between the two comes when the cells found in the blood smear are so young that they are not differentiated into leucocytic or lymphocytic series. In the acute leukemias these younger cells appear, and there are times when the diagnosis is extremely difficult, because the younger cells of both series look very much alike. They can, however, be differentiated by special methods of staining. This is a leukemia of the marrow type. There is a very definite secondary anemia, as would be expected in chronic leukemias. The debris is characteristic of the myelogenous leukemias, where the neutrophiles are extremely fragile.

Dr. Bock's report is again the picture of a myelogenous leukemia in a rather acute stage. I should like to ask Dr. Bock whether he finds the platelets always increased in myelogenous leukemia. Of course we know that in the leukemias hemorrhage is very frequent, also that the bone marrow is filled with myelogenous cells, and it has been my understanding that when such occur the platelets might be decreased due to interference with their formation and that that was the explanation of the tendency to hemorrhage. If this man has been bleeding I should not expect to find a very large number of platelets.*

Dr. Cabot: I should say they were generally increased. I cannot remember a case where they were not increased.

Dr. Fremont-Smith: Then the hemorrhage would have to be explained in some other way.

Until recently splenectomy in myelogenous leukemia has been looked upon as definitely contraindicated. Splenectomy is of great value in certain diseases with enlarged spleens: in hemolytic jaundice the whole picture is entirely changed by splenectomy. The patient is cured. In splenic anemia the same is true. In certain cases of chronic purpura hemorrhagica Dr. Mayo has reported excellent results from splen-

*Note by Dr. Bock: In chronic myelogenous leukemia the blood platelets are practically always greatly increased in numbers. A history of hemorrhage in this condition is not common. In acute myelogenous leukemia the blood platelets are more often diminished to absent, and hemorrhage is a frequent accompaniment of this state.

ectomy. He has also recently reported some good results in cases of myelogenous leukemia. The whole question of splenectomy in leukemia is now under discussion. Of course the mortality, especially with the large spleens, is very great, from ten to forty per cent. The patients die either from hemorrhage after the operation or from a thrombus. Dr. Mayo reports one of his cases in which lung infarcts occurred after splenectomy. The Mayos treat their patients with X-ray until the white count is reduced to about 40,000, then they operate.

Of course the question what the spleen does and what is done to the patient when the spleen is taken out is interesting. Physiologists would say the functions of the spleen are for the most part unknown. Still it is interesting to examine hypotheses with regard to splenic function. Yates says the spleen has four functions: (1) the destruction of red cells, (2) the formation, perhaps from the red cells, of a hormone which, activated by the liver, stimulates blood production in the bone marrow, (3) the formation of endothelial cells and lymphocytes, and (4) the production of certain protective bodies, protecting against infection.

### DIFFERENTIAL DIAGNOSIS

As it turned out incision probably was a mistake. Whether that would have made any difference in the result we cannot tell. The man must have died of sepsis. He may have had a terminal pneumonia. He went five or six days with practically no rise in temperature, and on the 4th of February, that is the day after his erysipelas began, his temperature went up. So I think we may say that he died of a terminal infection, that we may find the evidence of a pneumonia as a terminal event, but that the essential condition was a myelogenous leukemia with enlarged spleen, probably an enlarged liver, and a bone marrow characteristic of the condition, grayish in color, with vast numbers of these myelogenous cells.

DR. CABOT: Have you been convinced by anything reported from the Mayo Clinic that splenectomy does any good in myelogenous leukemia?

DR. FREMONT-SMITH: I saw one case myself which was interesting. One of the surgeons of the Massachusetts General Hospital was operating on a case in the country. The woman was very sick. He went in and found an immense spleen lying in the abdominal cavity. The temptation was too great, and he took it out! I took a blood smear a few hours later and found a myelogenous leukemia. The patient is now apparently perfectly well. Unfortunately we have not been able to get her here to check up on the blood findings.

DR. CABOT: How long has that been going on?

DR. FREMONT-SMITH: That was about one year ago.

DR. CABOT: I am entirely opposed to the idea of even considering splenectomy. I have read what I could of the Mayo reports. So far as I know they do not justify splenectomy in leukemia.

### CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Myelogenous leukemia.
Erysipelas.
Facial cellulitis, right side of face.
Excision of abscess above left eye.

### DR. MAURICE FREMONT-SMITH'S DIAGNOSIS

Myelogenous leukemia.
Erysipelas.
Sepsis.
Terminal pneumonia?

### ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

Myeloid leukemia.
Hypertrophy of the spleen, the liver, the mesenteric and retroperitoneal lymph glands.
Hyperplasia of the bone marrow.

2. *Secondary or terminal lesions*

Cellulitis of the face and neck.
Purulent infiltration of the subcutaneous tissues of the scalp.
Purulent otitis media, left.
Septicemia, streptococcus hemolyticus.
Facial erysipelas.
Edema of the lungs.
Wet brain.

3. *Historical landmarks*

Osteochondroma of the left lung.
Slight arteriosclerosis.
Nephrolithiasis.

DR. RICHARDSON: The body showed marked purulent facial erysipelas and purulent infiltration of the scalp tissues. There was purulent otitis media on the left.

The underlying condition of course was that of myelogenous leukemia. The striking things were the spleen and the liver. The spleen weighed 3650 grams (normally 80-180), the liver 3260 (normally 1200-2400). That is, the spleen was much larger than the liver and reached from the diaphragm on the left, which was pushed up a little, down to the pelvic brim. The bone marrow showed the typical picture of myelogenous leukemia, grayish, homogeneous, meaty, filled the cavity and showed numerous myelocytes.

There was edema of the lungs. An interesting thing was that on the lower lobe, extending from the pleura in, there was a little mass which appeared to be fibrocartilaginous with a question of bony material. The microscope showed that it consisted of those tissues with a bit of bone, and that the marrow of the bone showed leukemic infiltration.

Another unusual condition was that the pelvis

of each kidney contained a collection of yellow sand, some of the particles up to three millimeters. The sand was present in the kidneys, the ureters, and the bladder, and was found to be urates.

The heart blood yielded a profuse growth of the streptococcus hemolyticus.

A typical case then of myelogenous leukemia with (1) a piece of bone in the lung showing leukemic infiltration, (2) the sand, and (3) the extensive sepsis.

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## CASE 11183

### Surgical Department

A Newfoundland laborer of thirty-eight entered October 17 complaining of "a lump in the side." His general health had always been good. He had been a hard worker up to the present illness. He occasionally urinated one to three times at night. He drank about eight glasses of fluid a day.

Seventeen months before admission he was hit in the right side over the lower ribs with an iron pipe and was twenty days in a hospital with a swathe around his chest. After this he was well until November of the same year, when he had to give up work for four days on account of severe colicky pain in the right hypochondrium along the nipple line and radiating down toward the appendix, not toward the back, although he recently had pain in the back at the same level. During these four days food aggravated the pain, though fasting did not relieve it. During the next winter he had a few mild attacks. He had never had jaundice, urinary symptoms or fever. In the spring before admission he was pale. In April he noticed a small tender lump in the right hypochondrium after one of the attacks described. During the summer he had occasional momentary periods of weakness and dizziness with slight shortness of breath. Walking up a flight of stairs exhausted him but did not make him dyspneic. Since April he had lost fifteen pounds. During the past few weeks he had gained a little weight and strength. The feeling of weakness was most marked in the morning and wore off after about three hours. Since June he had found it expedient to avoid certain foods, particularly meat, on account of abdominal discomfort which followed twenty to thirty minutes after meals—an uncomfortable sense of fullness, relieved by vomiting, and a dull ache or "dragging pain, as though something were gnawing in his epigastrium." The latter type of discomfort occurred nearly every day, though for the past five days he had been almost free from it. During the summer he had vomited large amounts of undigested food nearly every day, frequently with these attacks of pain about half an hour after meals, and occasionally at other times. Eructations preceded the vomiting and a good deal of retching followed it. Although he felt very weak he continued to work at least part of the time until August 5, when he vomited up "more than a quart" of blood mostly in clots. He was very weak and next day went to a hospital. He had tarry stools for two days. During the summer he had had much trouble with constipation. His bowels had previously been regular. Since this hemorrhage he had had one or two loose bowel movements nearly every day, with only occasional intervals of constipation. Some movements had been very dark, not tarry. For the past six weeks his feet and legs had swelled during the day, less recently. His usual hearty appetite had not failed.

Examination showed a fairly well nourished man with pale skin, conjunctivae and mucosae. Tip and edges of the tongue glossy, showing atrophy of the papillae. Teeth all missing except the upper and lower front teeth. Some pyorrhea. Heart and lungs normal. B. P. 95/55. Diffuse swelling in the right upper portion of the abdomen with gutters in the lower quadrants. Filling the right upper quadrant, crossing slightly over the midline and reaching down one or two inches below the umbilicus was a firm, smooth, very slightly tender, freely movable, slightly irregular tumor descending with inspiration. Rectal examination showed the left lobe of the prostate larger than the right. In the upper portion was one small nodule or mass firmer in consistency than the remainder of the gland. There was slight pitting edema of both ankles. The pupils were normal, the knee-jerks not obtained.

Before operation the temperature was 97.3°-99.3°, the pulse 80-115, the respiration normal; the specific gravity of the urine was 1.024; no albumin or sugar; the hemoglobin was 50%, the leucocyte count 5,200, the polynuclears 84%, the reds 3,384,000, with marked achromia, poikilocytosis and anisocytosis. X-ray showed a large irregular filling defect involving the greater portions of the body of the stomach and the posterior wall from the lesser curvature up to the cardia. Peristalsis was absent and the mobility of the stomach fixed. There was no retention of the motor meal. The first portion of the duodenum appeared regular. The motor meal had reached the terminal ileum and cecum at the end of six hours.

October 22 operation was done, preceded by surgical transfusion of 600 c.c. of blood. After it the patient vomited considerable blood, but seemed otherwise in good condition. The pulse was regular and weak. He did not do well, however. The temperature rose to 104.8°, the pulse to 158, the respirations to 33. He became comatose. October 24 he died.

### Discussion

#### BY DR. HUGH CABOT

There is nothing in the previous history which seems to have important bearings.

Whether or not we should regard the injury of seventeen months ago as having any relation to the present condition is doubtful.

The symptoms of his present condition did not clearly develop until six months after the injury, and beyond the fact that they were in the same general part of the body may not be clearly related. The pain for which he stopped work eleven months ago is of an unusual type in that it began in the upper right quadrant and radiated downward, although not in the way which is typical of renal pain. The suggestion is that this was associated with the intestinal rather than the urinary tract. The relation of pain to food is not perfectly clear and by no means typical of that which one associates with a lesion of the stomach or duodenum. He seems to have been fairly well during the winter, though by spring he apparently showed some evidence of chronic illness.

PLATE 1. Note the high position of the stomach, the deformity and fixation of the lesser curvature.

In April he discovered a definite lump associated with an attack of pain. It is not stated whether this lump disappeared after this attack or whether it persisted. It is quite clear that from this time forward he was suffering from some serious illness which importantly affected his general condition, though the loss of weight has not been so great as might have been

expected and there is a suggestion of a recent gain which is not easy to reconcile with the rest of the picture. During the past six months there appears to have been a fairly definite relation between food and pain, the pain coming on fairly definitely after meals and relieved by vomiting. At this time at least the suggestion of some lesion of the stomach or duodenum is pretty strong. During the summer there is some suggestion of pyloric obstruction. In August he had a massive hemorrhage such as one associates very definitely with non-malignant ulcer.

The physical examination shows that there has been no very great loss of weight and shows evidence of anemia such as would be expected after his recent hemorrhage. The examination of the upper right quadrant is quite unusual. There appears to be here a fairly large mass which is described as firm, smooth, only slightly tender and freely movable. The rest of the examination is only what one would expect as going with the rest of the condition and associated with his anemia.

PLATE II. Stomach fixed at point indicated by arrow.

The X-ray examination shows a very extensive lesion of the stomach, but does not fit very accurately with the description of the tumor. The clear suggestion of the X-ray is an extensive rapidly growing cancer which one would expect in a man of his age. On the other hand

such a mass would rarely be smooth and not often properly described as freely movable when it had reached this size.

The only discussion of importance should, I think, concern the question of whether or not this lesion is malignant. It is hard to picture any non-malignant lesion producing a mass of this size except through the medium of chronic perforation, which would fix the tumor and therefore can hardly be considered. I see no avoiding the diagnosis of cancer. Whether or not one should in any way associate it with the injury of a year and a half ago may be a moot point. If it were not for the injury this case would follow accurately upon the average history of malignant disease of the stomach, though the massive hemorrhage is unusual. Personally, I am disinclined to relate the injury to the tumor. I suppose that in view of the possible doubt of diagnosis operation is justifiable, though if the diagnosis be correct no benefit is likely to result other than the ascertainment of the facts.

DR. CABOT'S PRE-OPERATIVE DIAGNOSIS

Carcinoma of the stomach.

X-RAY INTERPRETATION

Extensive malignant disease involving the greater portion of the stomach, apparently inoperable.

PRE-OPERATIVE DIAGNOSIS

Carcinoma of the stomach.

OPERATION

Gas and ether. Median incision above the umbilicus. A large cystic tumor the size of a grapefruit in the omentum. Ulcer felt on the superior posterior wall near the esophagus. Stomach adherent to pancreas at this point. It was thought this might be inflammatory, though it suggested a carcinomatous ulcer. Mass and omentum removed. Exploration of the other abdominal organs was negative.

PATHOLOGICAL REPORT

An encapsulated tumor the size of a grapefruit, almost totally necrotic. Attached to it is an egg-sized soft mass.

Microscopic examination shows an extensively necrotic growth in which there are small areas of irregular gland tubules composed of atypical epithelial cells with a stroma of lymphoid cells. The histological appearances do not suggest a primary tumor of the gastro-intestinal tract.

Adenocarcinoma.

FURTHER DISCUSSION

The operative findings are of course most unusual. A tumor of this position and size is entirely without my experience. It is on the whole rather surprising that such a mass should have produced a filling defect as described in the X-ray. The operative findings suggest that the only ulcer of the stomach was in the posterior superior wall where its detection by the X-ray would be very difficult. I gather that no attempt was made to deal with this ulcer. Such an attempt would certainly have been fraught with the gravest mechanical difficulty. Though the pathological report does not suggest a relation between the tumor of the omentum and the ulcer alleged to have been found in the stomach, it is still difficult for me to assume that they are separate entities. An adenocarcinoma in the omentum is obviously a secondary growth and must have had its origin in some organ containing glands. If, therefore, the findings at operation are accurate I think we must conclude that the tumor in the omentum was secondary to a lesion of the stomach. His death was I think due to infection overwhelming a patient in poor general condition. Whether or not there will be any definite underlying signs other than a mild peritonitis I am doubtful.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Carcinoma of stomach.
Peritonitis.
Exploratory laparotomy and excision of mesenteric tumor.

DR. HUGH CABOT'S DIAGNOSIS

Carcinoma of stomach with metastases.
Septicemia.
Peritonitis?

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesion*

Carcinoma of the stomach with metastases in the retroperitoneal glands.

2. *Secondary or terminal lesions*

Focal pneumonia.
Edema of the lungs.
Soft hyperplastic spleen.

3. *Historical landmarks*

Operation wound.
Slight chronic pleuritis, left.

DR. RICHARDSON: The head was not examined.

In the region of the posterior wall of the stomach, midway, there was a large thick layer of new growth tissue with its upper margin reaching nearly to the esophageal margin and its lower margin about 4 cm. above the pylorus. The mass was 16 cm. long by 8 cm. in width and varied in thickness up to 3 cm. The peripheral portions rounded up into thick fungus-like masses which faded out into ulcerated new growth tissue in the central portion. The growth extended through the wall of the stomach, bind-

ing it down along the upper border of the pancreas and to the transverse colon. The wall of the transverse colon was intact. In the region of the great omentum along the greater curvature of the stomach there was a large area where the tissue was a little ragged and necrotic and in places there were sutures. A short distance from this toward the left there was an enlarged gland-like mass 3½ cm. in diameter which on section showed new growth infiltration.

The retroperitoneal glands other than the one mentioned were slightly enlarged in the region of the stomach and lesser omentum and some of them showed new growth infiltration. The margin of the liver was at the costal border in the right mammillary line. The diaphragm was at the third interspace on the right, the fourth interspace on the left.

In each pleural cavity there was a small amount of thin pale cloudy fluid. There were a few pleural adhesions on the left. The trachea and bronchi showed much pale reddish froth. The bronchial glands were slightly enlarged, soft and juicy.

The lungs were voluminous, the apices negative, much edema. In the region of the lower lobes there were several foci of pneumonia.

The spleen was slightly enlarged and soft.

### Further Discussion by Dr. Cabot

The autopsy findings show that the lesion in the stomach was more extensive than had been thought at operation. It seems to me quite clear in view of the findings that the two processes were associated and that the tumor removed from the omentum was secondary to the carcinoma of the stomach.

## CURRENT LITERATURE

### ABSTRACTORS


Gerardo M. Balboni — Tracy Mallory
William B. Breed — Herman A. Osgood
Laurence D. Chapin — Francis W. Palfrey
Austin W. Cheever — Edward H. Risley
Randall Clifford — George C. Shattuck
Ernest M. Daland — William H. Shedden
Horace Gray — Warren R. Sisson
Robert M. Green — John B. Swift, Jr.
John B. Hawes, 2nd — George G. Smith
John S. Hodgson — W. T. Sherman Thorndike
Fred S. Hopkins — Wilder Tileston
Chester M. Jones — Henry R. Viets
Charles D. Lawrence — Shields Warren
Bryant D. Wetherell


### The Treatment of Infections

Young, H. H. (*Surgery, Gynecology and Obstetrics*, January, 1925).

Young presents a very valuable article on the now much-discussed question of treatment of infection—general, local, and urinary—with the intravenous injection of mercurochrome. The author is very enthusiastic over the almost invaluable results obtained in certain desperate cases. On the other hand, he states that there are certain present drawbacks to this form of treatment; one never is able to tell what type of case will receive an extremely severe reaction as a result of the injection. However, in some of these cases which have extremely severe reaction, recovery follows when death seemed inevitable before treatment was undertaken. The exact dosage is at present hard to determine. The author is inclined to believe that larger doses are more effective than smaller repeated doses. Nephritis is not unlikely to occur as a result of treatment, also stomatitis.

All intravenous medication requires great care. Mercurochrome is no exception. He does not attempt to estimate proper dosage. He believes that a great deal more clinical evidence must be deduced before this form of treatment can be standardized. He, however, believes it is of vast assistance in desperate types of cases.

[E. H. R.]

### A Study of Tuberculosis in Childhood

Macgregor, A. R. (*Edinburgh Medical Journal*, February, 1925), in a most excellent paper, reviews 194 post-mortem examinations performed at the Royal Edinburgh Hospital for Sick Children, during the period between July, 1922, and December, 1924. All of the cases were children under 12 years of age. Tuberculous lesions were found in 42 of the 194 cases, or 22 per cent. The ages of the tuberculous children ranged from 4 months to 10 years, the average age being 2 years and 9 months; 7 were under 1 year, 4 over 5 years, and 31 between 1 and 5 years of age. She found as the result of her study in this series that a great majority of cases of acute miliary tuberculosis and meningitis showed advanced caseous tuberculosis in the thoracic glands, and that the great majority of cases of tuberculosis of the thoracic glands terminated with miliary tuberculosis. It is interesting that almost all cases with advanced caseous tuberculosis of the thoracic glands had associated pulmonary lesions, and that infection of the lungs was never found to be obviously of longer standing than that of the thoracic glands.

[R. C.]

### Ectopic Adenomyoma

Lemon, W. S., and Mahle, A. E. (*Archives of Surgery*, January, 1925).

These authors give the history of nine cases, with pathological specimens, and discuss this subject with very special reference to postoperative invasions of the abdominal wall. They state in conclusion that they do not believe that the accepted hypotheses with regard to the production of the adenomyomas of the uterus and tubes explain the presence of adenomyoma in the abdominal wall. Cullen's hypothesis is satisfactory, provided uterine mucosa can be transplanted and will grow in the tissue of the abdominal wall. Chiara's and von Franque's explanation of the growth of a transplant is plausible, and we have shown that inflammation was present in our series of cases. Judd's idea that the uterine mucosa may be transplanted by needle and suture into the abdominal wall is logical. Various methods of operation were performed for uterine prolapse, and in each instance it was possible for uterine mucosa to be carried to the abdominal wall.

[E. H. R.]

### Liver Function in Acute Intestinal Obstruction

Colp, R., and Louria, Henry W. (*Archives of Surgery*, March, 1925).

These authors report on experimental work done on a series of 13 dogs, and draw the following summary and conclusions:

1. The phenoltetrachlorphthalein test was performed in a series of 13 dogs in which some portion

of the small intestine had been obstructed. The results showed a slight degree of retention, the average reading between 1 and 3 per cent. at the end of 15 minutes. In one dog there was a 7 per cent. retention.

2. Necropsy showed that the gall bladder was uniformly distended with bile of normal appearance.

3. The contents of the intestine above the level of the obstruction were stained with bile.

4. In two dogs, in which a biliary fistula was created simultaneously with the production of the intestinal obstruction, there was no apparent decrease in the drainage of bile, even when the animals were moribund.

5. Necropsy showed no gross change in the liver.

6. Histologic examination of sections of the liver removed at necropsy revealed no structural changes.

*Conclusions*—Liver function as determined by the phenoltetrachlorphthalein test and the production of bile is apparently not greatly disturbed in acute intestinal obstruction.

There are no structural changes in the liver associated with acute intestinal obstruction.

[E. H. R.]

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### Notes on Acute Rheumatic Disease of the Heart

Thayer, W. S. (*Bulletin of the Johns Hopkins Hospital*, February, 1925), gives an analysis of a series of 25 cases coming to necropsy within the last 35 years at the Johns Hopkins Hospital which appeared to be of indisputably pure rheumatic origin without demonstrable complicating bacterial septicemia. He concludes as follows:

The rheumatic origin of the manifestations of acute heart disease must naturally be regarded as probable when these are associated with polyarthritis or chorea. When, however, neither arthritis nor chorea is evident, a rheumatic carditis may be suspected from the youth of the patient, the history of previous arthritis or chorea, the evidences of tonsillitis, negative blood cultures, the frequency of serofibrinous pericarditis, relatively rare in acute and subacute bacterial endocarditis, the pronounced leucocytosis and the absence of petechiae, of evidence of splenic enlargement, embolic phenomena or of blood in the urine.

Especially significant, however, are the electrocardiographic changes or the early onset of failure of the heart muscle, which reveal the presence of myocardial envolvement, much more common in rheumatic disease than in other cardiac affections.

[R. C.]

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### The Practitioner, January, 1925

This entire number is a special number devoted to dietetics, vitamines, and food reform.

[R. C.]

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### The Early Treatment of Superficial Burns

Radvin, I. S., and Ferguson, L. K. (*Annals of Surgery*, February, 1925).

These authors present a very interesting article dealing largely with the theories of the causation of the primary shock and toxemia resulting from superficial burns. Their discussion is quite scientific and adequately sums up all previous work done along this line. The article is of more theoretical than practical interest.

[E. H. R.]

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### Geographical Distribution of Exophthalmic Goiter in Great Britain

Campbell, J. M. H. (*Quarterly Journal of Medicine*, January, 1925), reports interesting figures bearing on this subject, based on mortality statistics. He found that in certain parts of the country, namely, Cornwall, Devon and Somerset, most of Wales, Yorkshire, and the south of Scotland, the mortality from this disease was about double that for the country in general, and three or four times that of certain favored localities, such as London.

The cause for this distribution is not known. It is not due to social or industrial factors, nor to geological features, such as mountains or sea coast. The lack of sufficient statistics about endemic goiter makes it difficult to say what the relationship to this condition may be.

[W. T.]

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### Gonorrheal Proctitis as a Cause of Blood and Mucus in the Stools of Infants

Bloomberg, Max W., and Barenberg, Louis H. (*American Journal of Diseases of Children*, February, 1925).

A series of 41 cases were observed in which blood and mucus were observed in the stools with gram-negative intracellular diplococci in the pus cells. Most of the cases were female infants with acute gonorrheal vaginitis. The gonococcus was isolated in culture in two infants from rectal ulcers. The treatment of this form of proctitis in children consists of irrigations of solutions of 1/3000 of silver nitrate.

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### Renal Tuberculosis

Nitch, C. A. R. (*The Lancet*, January 3, 1925), in a most excellent and well illustrated article, discusses the various phases of renal tuberculosis. He feels that "when the medical profession as a whole has learned to regard all cases of mild 'cystitis' with suspicion, and when the ureters of a patient with a sterile purulent urine are regularly catheterized, and the two specimens of urine are examined for tubercle bacilli, there will be a negligible operative mortality, a great increase in the percentage of cures, and a corresponding diminution in the troublesome genito-urinary complications."

[R. C.]

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### Abnormally Low Pulse Pressures in Cases of Neurosis

Bain, W., and Bain, C. W. C. (*The Lancet*, January 17, 1925), in an analysis of 2000 general cases, show that 230 show pulse pressures of 30 mm. of mercury or under. They found that in 90 per cent. of these this was associated with nervous phenomena, either neurasthenia or neurosis. A return of the pulse pressure to normal was found to be an indication of improvement in the general condition. It is suggested that lack of vascular tone, causing stagnation of blood, is the most likely explanation.

[R. C.]

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### Celiac Disease (Chronic Intestinal Indigestion)

Sauer, Louis W. (*American Journal of Diseases of Children*, February, 1925).

A high protein diet is advocated, as has previously been recommended for this disease. Protein milk in the powdered commercial form was successfully used. Three phases in the treatment are suggested: (1) Concentrated protein milk exclusively, in amounts approximately corresponding to a packed level tablespoonful to one pound of body weight; (2) protein milk with other protein foods (curds of buttermilk, eggs, lean meat); (3) additions to these foods in the form of dextrinized starches with powdered spinach and sugars added later.

THE BOSTON
# Medical and Surgical Journal

*Established in 1828*

Published by The Massachusetts Medical Society under the jurisdiction of the following-named committee:

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Subscription Terms: *$6.00 per year in advance, postage paid for the United States, $7.56 per year for all foreign countries belonging to the Postal Union.*

*Material for early publication should be received not later than noon on Saturday. Orders for reprints must be sent to the Journal office, 126 Massachusetts Ave.*

*The Journal does not hold itself responsible for statements made by any contributor.*

*Communications should be addressed to The Boston Medical and Surgical Journal, 126 Massachusetts Ave., Boston, Mass.*

## THE PROBLEM OF DIABETES

With the value of insulin and of the dietary treatment of diabetes well established, we seem to have progressed about as far as possible in therapeusis. While methods of treatment have been improving, the disease has steadily became more prevalent and efforts to discover the etiology have had but slight reward.

One of the more valuable of recent contributions to our knowledge of the disease is that of Emerson and Larimore[1], applying epidemiological methods to its study. As they point out, the mortality statistics are fairly trustworthy, since the duration of diabetes and its characteristic symptomatology make for accurate diagnosis. Of course the greatly increased use of routine examination of the urine in the past few years has detected many cases of glycosuria that otherwise would have been missed until marked diabetic symptoms developed. However, theoretically the early detection of the disease should lower, rather than raise, the death rate.

In New York City, the ratio of diabetic to total deaths has increased from one in 2,437 in 1866 to one in 51 in 1923, while in the last forty years the death rate from diabetes in the U. S. Registration area has increased from 2.8 to 16.8 per 100,000 of population. In the same period, the death rate from all has steadily fallen.

A portion of the increase can be explained of course by the larger number of persons now reaching the older age periods, at which the incidence of diabetes is greater. However, even with liberal allowance for all factors of error, diabetes is undoubtedly increasing.

One of the most significant of Emerson's charts is that showing the close correlation between the diabetic death rates and the estimated per capita consumption of sugar in the United States, Great Britain, and France. Joslin has long taught that obesity is an important predisposing factor in diabetes, and Emerson's statistics bear him out. The remarkably high diabetic death rate of Jews apparently is not due to any racial susceptibility, but rather to their habits of over-eating and under-exercising.

Diabetes is a rare disease among those doing hard manual labor, while comparatively common among those whose occupations are sedentary. Here not only the difference in exercise, but the difference in means for indulgence in luxury is probably important. Plain living apparently is the only prophylactic measure which we know at present.

REFERENCE

1 Emerson and Larimore: Arch. Int. Med., 1924, xxxiv, 685.

## REPORT OF THE MASSACHUSETTS GENERAL HOSPITAL

The one hundred and eleventh annual report of the trustees of the Massachusetts General Hospital reveals a notable list of advances made during the past year and promises much for the future. In every way the hospital shows the successful efforts it is making to keep abreast of the times.

The year 1924 has in particular been marked by the bequest of Mrs. Thomas O. Richardson of $1,000,000 to "The Massachusetts General Hospital for the establishment and needs of a branch of the Hospital for persons of limited means, yet able to make some payment, where they will receive adequate medical and surgical treatment." This is the largest single gift received by the Hospital.

In addition, during the past year, the east wing of the Bulfinch Building, containing the medical wards, has been fire-proofed and modernized, and a large ell has been constructed in the rear of the wing for new ward service rooms and for laboratories for medical and scientific research. During the past month the wards have been reöccupied by patients and the laboratories are gradually coming into use. Also of great value to the Hospital and greatly increasing its accessibility are the widening of Cambridge street, which will thus become one of the main traffic arteries of the city, and the Boston Elevated Railway Station to be built at the corner of Charles and Cambridge streets.

Finally, with an eye to the future, the major needs of the Hospital have been re-stated:

First—A considerable increase in endowment.

Second—A new ward building for certain medical and surgical departments, which the Hospital either does not now have, or which are inadequately provided with beds.

Third—An increased endowment for the Hospital for people of moderate means.

Fourth—A connecting building between the Massachusetts Eye and Ear Infirmary and the Out-Patient Dpartment of the Hospital.

Fifth—Quarters for the orderlies and other male attendants.

Sixth—a country branch.

Seventh—a fund, the income of which may be used for research in the science of medicine.

## THE TEACHING OF DIETETICS TO MEDICAL STUDENTS

THE admission has often been made that although doctors are prone to indicate the type of diet suitable for certain conditions they are often very vague in regard to the actual details of such diets. So far as we know no practical demonstrations of diets have ever been given in medical schools.

An effort has been made recently to arouse the interest of students in this subject by means of such demonstrations. Under the supervision of Dr. Elliott Joslin there has been held in the New England Deaconess Hospital a series of three demonstration luncheons for the third year class at the Harvard Medical School, numbering abuot 100 men.

At the first luncheon emphasis was placed upon the caloric value of various types of food. Standardized portions of known caloric value were served so that the students might get a definite idea of what a given diet based on calories might be. The second luncheon consisted of a diabetic breakfast with grapefruit, oatmeal, eggs and bacon. The third luncheon consisted of a nephritic diet; macaroni and tomato and apple pie and ice cream were served. The Sippy diet for peptic ulcer and obesity diets were discussed.

The students were charged 25 cents apiece for each luncheon and the balance of the cost was paid for by the Deaconess Hospital and the W. L. Shearer Fund.

It is hoped that this might be made an annual exercise. It is obvious that demonstrations of this kind will make a lasting impression upon the mind of the medical student.

## THE DANGER OF PRESENT DAY INTOXICANTS

THE Equitable Life Insurance Company has announced its decision to reject as bad risks nearly all consumers of intoxicants.—*The Nation's Health.*

## LEGISLATIVE NOTE

*House Bill* 1209 has been passed and signed by the Governor. It reads as follows:

An Act relative to the Method of Reporting Certain Diseases Dangerous to the Public Health

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

Section one hundred and twelve of chapter one hundred and eleven of the General Laws is hereby amended by adding at the end thereof the following:—The provisions of this section and of sections one hundred and nine and one hundred and eleven shall not apply to gonorrhea and syphilis, diseases having been declared dangerous to the public health. Said diseases shall be reported to local boards of health either directly or through the department, in accordance with such special rules and regulations as the department may make, having due regard for the best interest of the public.

## MISCELLANY

### HEALTH OFFICIALS FROM SOUTH AMERICA TO VISIT CONNECTICUT

FROM April 29th to May 6th Connecticut will demonstrate certain health activities to the delegates from the Latin-American countries. During this spring distinguished health officials from Mexico, Cuba, Paraguay, El Salvador, Venezuela, Brazil, Uruguay, Peru and Argentine Republic are visiting the United States under the escort of Dr. Louis Destouches, of the League of Nations. Connecticut has been selected as one of the states to be visited and a tour of inspection has been planned.

On April 29th, they will be in Bridgeport, in New Haven on April 30th, and in Waterbury on May 1st. From May 2nd-6th Hartford will be the host and various trips have been planned for the interest of these health officials by the State Department of Health in coöperation with the Hartford Board of Health, Mr. James Whittlesey, State Commissioner of Domestic Animals, the State Tuberculosis Commission, Mr. Thomas Holt, State Dairy and Food Commissioner.

### FURTHER NOTE FROM THE MEETING OF THE AMERICAN CHEMICAL SOCIETY IN BALTIMORE

EXPERIMENTS indicating that the presence of fluorine in excessive quantities in food was injurious to the teeth was reported in a paper by Dr. E. V. McCollum, Nina Simmonds and J. Ernestine Becker of Johns Hopkins and Dr. R. W. Bunting of the University of Michigan.

Fluorine is a constant constituent of both enamel and dentine, and the investigators started

out to determine whether its excess or deficiency in diets affected teeth.

Rats, which were fed on a diet which resulted in bad teeth, were given a ration of fluorine. Whether this is beneficial the investigators are not ready to say, but they made public their results indicating that too much fluorine was dangerous. The incisors of rats which received too much fluorine grew very soft. The lower ones wore to the gum line and the upper ones became very brittle. The paper on the subject continued:

"The problem of the cause of tooth decay is one of the most important in public health work, since disease is often the result of bacterial infection through the teeth. Nutrition studies in recent years have dealt principally with lack of essential substances in the diet and their results. The present report shows a positive detrimental effect on the teeth through the presence of an undesirable constituent of the diet present in amounts no greater than either wild or domestic animals may sometimes secure in the food.

"Fluorine has often been put into wines and has been used for sterilizing vessels in which beverages have been stored. The detrimental effects of even small amounts of fluorine on the skeleton and teeth suggests the possible danger in taking metals which are chance contaminants of foodstuffs. The more important of these are under investigation."

REPORT A VITAMIN PUZZLE

Another vitamin puzzle was reported by the same set of investigators. They found that an excess of salts produced results approximating those caused by a deficiency of vitamins, their report said:

"About two years ago we observed a peculiar eye disease resembling that due to lack of vitamin, but produced by diets containing excessive amounts of certain salts, especially sodium and chlorine.

"In an elaborate study designed to determine what element or elements might be especially effective in causing this injury to the eyes, most puzzling results have been secured. Feeding excessive amounts of any one or more of the elements normally present in foods fails to induce the ophthalmia.

"With a certain diet containing excessive amounts of salts the ophthalmia appears when less than 3 per cent. of wheat germ furnishes the vitamin B. With 4 or more per cent. of wheat germ the animals are protected. The only known factor operating here is the vitamin B content. However, yeast, which is usually regarded as the richest known substance in vitamin B, fails to protect the animals when under the same experimental conditions as much as when 5 per cent of dry yeast is included. High or low protein has no effect on the appearance of ophthalmia.

"One suggestion is that what we call the vitamin B may in reality consist of two or more substances, and that these substances are present in different proportions in yeast and wheat germ."—*New York Times.*

## THE DEADLY AUTOMOBILE

AMERICA has recently been counting the cost of speed, and the results are, to say the least, startling.

The following table[1] shows the number of deaths in 1921 from various causes, including automobile accidents, in the United States Registration Area:

| | |
|---|---|
| Influenza | 10,193 |
| *Automobile accidents* | 10,168 |
| Typhoid fever | 8,007 |
| Angina pectoris | 8,031 |
| Cirrhosis of the liver | 6,598 |
| Alcoholism | 1,611 |

This means that the motor car is more deadly than the typhoid bacillus and that it kills far more people than alcohol does directly.

The figures showing the increase in the death-rate from automobile accidents during the past fifteen years are even more alarming:

DEATH-RATE PER 100,000

| 1900-10 | 1911-15 | 1916 | 1917 |
|---|---|---|---|
| 1.0 | 3.9 | 7.3 | 9 |

| 1918 | 1919 | 1920 | 1921 | 1922 |
|---|---|---|---|---|
| 9.3 | 9.4 | 10.4 | 11.5 | 12.5 |

The rate of 1922, it will be seen, was more than twelve times that of 1900. What will the rate be in another twenty years' time?

The majority of accidents are attributed to carelessness, stupidity, self-indulgence and, in some degree, to an exaggerated sense of self-importance on the part of many people. It is pointed out that there are really only three good reasons for speeding,—fire, accident and illness. There is no other business so important that a speed of more than twenty-five miles an hour is necessary. It is better to lose a train than to lose one's life or to take someone else's life.—*The World's Health.*

1 How to Live. Aug., 1924. Published by the Life Extension Institute, Inc., 25 West 43rd Street, New York.

## COMPULSORY PHYSICAL EXAMINATION FOR MEDICAL STUDENTS

THE faculty of the Harvard Medical School has voted that beginning next year it shall be compulsory for medical students to undergo physical examination.

## THE DOCTOR'S SUNDAY

THE following poem sent us by one of our readers was apparently written about 1875. It proves that some of the problems of medical practice, particularly of that portion called general medicine, were as pressing in those days as

they are today. Let us hope that the good doctor's prayer is gradually having its effect.

O ye! who wake from dreams refreshing,
With hearts attuned to prayer and blessing,
Who love to own that winning spell,
The sacred call of Sabbath bell,
Ye happy souls! one tear of pity
I dare to claim for my sad ditty.

We hear about the "prisoners' friend,"
And philanthropics without end;
Of seething patriots in confusion
Bombarding down the Constitution;
Of martyrs, whom these wicked times
Have victimized in modern rhymes.

Ye ought to help the Foreign Missions
And colored folk of all conditions,
To go to service twice a day,
And piously for slaves to pray;
But don't forget the Doctor's life,
His hungry brood, and waiting wife.

For him no sleep untroubled brings
A calm delight in sacred things;
For him no Christian bells are ringing
To hush away the week day's sinning—
The roads are crooked, hot and dry,
And poor old M— has broke her thigh.

One little Adam, not content
With other mischief, gulps a cent;
And tender babes, mama's delight,
Would bring incipient teeth to light;
Young L— has caught a horrid cold,
And aches beset both young and old.

Some send demands in such a hurry
Their messenger's quite in a flurry,
By dint of panting can but tell
That A— three weeks has been unwell.
But I'll abridge my category
Lest some should weary of my story.

With aching limbs and weary brain,
Heart-sick at sight of mortal pain,
By past experience taught his fate,
The Doctor reins before his gate—
One carriage keeps its tenants still,
While others wander round at will.

In one room sits a pining maid,
Another holds a matron staid;
And consort, child and hopeless lover
Must tell their pains and troubles over.
So faint and sore without his dinner,
Who does not pity this poor sinner?

Go plow and dig, but seek not ease
If you have ninety score to please.
And now this first heart-felt petition
I offer for the poor Physician.
Oh, let the Lares in peace preside
One day in seven his hearth beside,
And give him space to dine and pray
And go to church one half the day.

Take, kindly friends, the hint I offer.
If very sick send for the Doctor;
But pious Christian priests polemic
Pray for the fearful epidemic
That never can be cured at all
But by a ride and Sunday call.

Where'er this little sheet doth go
May purer aspirations grow,
And Woburn lead the generous van
That rights the wrongs of every man.
But don't forget this first petition
I offer for the *poor Physician.*

A. SUFFERER.

## THE OBJECT OF SOCIAL HYGIENE

AT the annual social hygiene conference held in Cincinnati, a re-phrasing of the purpose of certain societies was worked out by representatives of the British, Canadian, and American organizations as a step toward the development of uniform programmes and principles. This statement was adopted by the American Social Hygiene Association at the annual meeting, January 17, 1925.

"It is recognized that Social Hygiene in its widest sense includes all things that have to do with the welfare of human beings living in societies; but for the purpose of this organization it is proposed to devote attention chiefly to the following points by disseminating the knowledge acquired in the medical, psychological, sociological, anthropological, and other fields of science and of education and religion, in order to form an instructed public opinion and to secure action when possible.

I. To preserve and strengthen the family as the basic social unit.

II. To promote educative measures concerning the relations of the racial instinct to the conditions of civilized society.

III. To emphasize the responsibility of the community and the individual for preserving or improving the quality of future generations by educative and social measures.

IV. To further social customs which promote a high and equal standard of sex conduct in men and women.

V. To promote the prevention and treatment of venereal disease by appropriate educative, medical, and social measures.

VI. To repress commercialized vice.

VII. To ameliorate conditions conducing to promiscuity.

VIII. To coöperate with the various organizations interested in the above subjects with a view to coördinating efforts to secure these ends."—*The World's Health.*

## NATIONAL HEALTH DAY

THE 3,500,000 members of the American Federation of Labor have been called upon by William Green, recently chosen president of the Federation, to support the objects and plan of National Child Health Day on May 1. Mr. Green's call to labor, and the endorsement of National Child Health Day by Dwight W. Davis, Acting Secretary of War, were announced simultaneously by Herbert Hoover, President of the American Child Health Association.

## AGAINST USE OF BUNION PADS OR OTHER IMPROPER DRESSING IN VACCINATION

SURGEON GENERAL HUGH S. CUMMING of the United States Public Health Service has issued a warning to the medical profession and to

the public against the use of bunion pads as a dressing in vaccination against smallpox.

This singular use of bunion pads appears to be more common than would be supposed. Several fatal cases of tetanus, following their use, have recently appeared in the United States, and tests made by the Hygienic Laboratory of the Public Health Service have demonstrated the presence of tetanus spores in bunion pads from the same source as those which were associated with tetanus cases.

"The Public Health Service," says Surgeon General Cumming, "deplores the use of any kind of shield as a vaccination dressing. The employment of a shield tends to prevent evaporation, to retain heat, moisture, or discharges, with a consequent softening of the vesicle, to obstruct lymphatic drainage, and to create conditions apparently favorable for the development of infection."

Surgeon General Cumming says that the cross scarification method of vaccination, which was formerly common and which is still adhered to by some, is dangerous. He recommends that if an incision is made for the purpose of vaccinating, it should not draw blood, if possible to avoid this, and that it should not be more than one-eighth of an inch in length. If two such incisions are made they should be one inch apart. If they are placed closer together than one inch, they are very likely to coalesce. If vaccination is done by the method of making a small abrasion, such as may be done with a specially prepared instrument, this should not be more than one-sixteenth of an inch in diameter, and if two such abrasions are made, they should be one inch apart.

Surgeon General Cumming points out the fact that since 1900 six million persons have been vaccinated by the physicians of the Army and the Navy without a single case of tetanus having occurred.—*U. S. Public Health Service.*

## WHEN IS A NUISANCE?

THE power is placed in the hands of local health officials to abate any nuisance which may be apparent to the community at large or so reported in writing by one or more people.

The question may well arise—what is a nuisance? Something that annoys or vexes another? This is a private nuisance. Something that affects large numbers or the whole community? This is a public nuisance.

The State Department of Health is often appealed to in judging nuisances. Before court action is resorted to it should be established that the nuisance is a real annoyance or works an injury to others, and is not merely unpleasant to one who is unusually sensitive to sights and sounds and odors. Nor can a public nuisance appear in the disguise of a personal spite against a neighbor. There must be menace to health before action can be taken against a public health nuisance.

Customs and localities differ as to nuisances. What might be acclaimed a nuisance in congested parts of a city, such as a pig pen, or a rooster in the farm yard, or a stable, or offensive odors from a manufacturing plant, may not prove a nuisance in the country or in the section where factories abound. Whereas a city dog may prove a nuisance in the country where sheep abound.

So the health officer must interpret nuisances and use his power to abate them should they prove to be a real menace to health. Connecticut public health statutes define such nuisances and dictate the procedure for their removal.

Sec. *2406.* Refuse and rubbish may be removed from vacant land.

*Sec. 2407.* Filling of swampy lands and depressions in which stagnant water permanently stands is a detriment to health.

*Sec. 2408.* Abolishing spots where water stands or removing tin cans and receptacles which form breeding places for mosquitoes.

*Sec. 2409.* Eliminating mosquito breeding places if funds have been provided for this purpose.

*Secs. 6050-53.* Discontinuing manufacturer's nuisance in which raw materials or waste products are exposed.

*Sec. 6287.* Filth and offensive rubbish may not be emptied on railroad tracks or at depots.

*Sec. 2695.* Obstructing passage on the public highways is a common nuisance.

*Sec. 2700.* Depositing rubbish in a stream whose course is over property in common with others is a public nuisance.

*Sec. 2704.* No obnoxious filthy matter or garbage may be placed on ground adjacent to others.—*Conn. State Dept. of Health.*

## RECENT DEATHS

**BELL.**—Word has been received of the sudden death from angina pectoris of DR. ERNEST LORNE BELL of Plymouth, N. H., at his camp at Newfound Lake, where he had gone for a brief rest.

Dr. Bell was born in Boston in 1871. He attended Riverside Academy, Jacksonville, Fla.; Whitman (Mass.) High School and Thayer Academy. He was graduated from Harvard in 1892 and from Dartmouth Medical School in 1894. After practising a short time in Woodstock he moved to Plymouth, where he pratcised surgery largely. He was a member of the American Medical Association, the New Hampshire Medical Society and the American College of Surgeons.

**BERTRAND.**—DR. ALEXIS EVARISTE BERTRAND died at his home in Lowell, July 24, 1922, aged 46, of uremia. He was a graduate of Tufts College Medical School in 1898 and joined the Massachusetts Medical Society in 1901.

**DEANE.**—DR. ASAHEL SUMNER DEANE, a retired member of the Massachusetts Medical Society, died at his home in Taunton, after a week's illness, April 10, 1922, at the age of 88.

He was born in Foxborough, March 31, 1837, and attended school there. He taught school in Canton,

Foxborough and Maynard, and entered the Berkshire Medical Institution at Pittsfield, where he received an M.D. degree in 1865, having served as a surgeon in the Navy during the war. He settled in practice in Fall River and joined the State medical society in 1866; therefore he was one of the oldest Fellows. He practised five years in Wrentham and moved to Taunton in 1871, where he had been a physician since. In 1896 he was president of the Bristol North District Medical Society. He was a Councilor, also a member of the Old Colony Historical Society and of St. Thomas' Episcopal Church and of William H. Bartlett Post 3, G. A. R.

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ORR.—Dr. Samuel Sanford Orr of Brookline died suddenly in Boston, April 9, 1925, at the age of 56.

Dr. Orr was a native of Port Morien, N. S., and was a graduate of Tufts College Medical School in 1897. He settled in practice in Weston, joining the State medical society in 1900. He had been in Brookline for the past seven years, with an office on Beacon Street. He was a captain in the World War and a Mason.

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WASSERMANN.—The death of Professor August von Wassermann on March 16, 1925, which was mentioned in the Journal of March 26, has deprived the medical world of one of its ablest investigators and the human race of a benefactor. Through his continued studies he has made several lasting contributions to the body of knowledge basic to general race betterment.

Wassermann was born February 21, 1866, at Bamberg, Bavaria. His father was a royal banker who gave his son the opportunity to gain a sound general and professional education. Wassermann studied medicine at the universities of Erlangen, Munich, Vienna and Strassburg, receiving his degree from the last-named institution in 1888. He then became assistant for infectious diseases at the Koch Institute of the Charité at Berlin, gaining the title of professor in 1898. In 1901 Wassermann was given an appointment to the University of Berlin as Professor Extra-Ordinary (Privatdozent), a position carrying with it no emoluments outside of the opportunity to teach and experiment in the university medical school and its laboratories. Within a year his unselfish devotion and keen interest in the science of medicine brought him a full professorship. In 1906 he assumed the duties as head of the Division for Experimental Therapy and Serum Research at the Royal Institute for Infectious Diseases at Berlin. In 1913 he added to his duties those of director of the newly founded Kaiser Wilhelm Institute at Dahlem, near Berlin, an institute for experimental therapeutics.

As a mark of appreciation of beneficial public service the title of Secret Councillor (Geheimrat) was conferred upon Wassermann in 1907; he was also awarded the Japanese Order of the Holy Treasury, the Turkish Order of Ozman, the Spanish Order of Elizabeth the Catholic, and the Reichs Adler Order.

Professor Wassermann was a prolific contributor to medical literature. As an introduction to Ebstein and Schwalbe's "Handbook of Practical Medicine" he wrote an able discussion concerning general studies on infectious diseases, especially influenza. He was also a regular contributor to the Eulenburg Encyclopedia, writing on immunity and serum therapy. He published many articles on newer subjects, such as hemolysin and precipitin. His best known works are contained in the "Handbook of Pathological Microorganisms, which he published in collaboration with Kolle.

Wassermann made a far-reaching and important contribution to forensic medicine by "his precipitin reaction which distinguishes the blood of men and animals by differentiating albumin bodies contained therein."

His greatest discovery, the complement fixation test in syphilis, was announced in 1906. This, the so-called "Wassermann Test," is an application to syphilis of a general reaction discovered by Bordet and Gengou.

An appreciation of the vast importance of the use of the Wassermann test as an aid in the diagnosis and treatment of syphilis may be gleaned from data collected and compiled by the Division of Venereal Diseases of the United States Public Health Service. The 165 laboratories of State Health Departments and State institutions, scattered throughout every State in the Union and included in this investigation, administered 990,130 Wassermann tests in 1923. This figure, when reduced to more evident terms, means that these 165 State laboratories have given one Wassermann test per every 106 people in the United States. The importance of the Wassermann test is further enhanced by the fact that these figures do not include many Wassermann tests made by private laboratories.

Though Wassermann's name has been connected with important researches dealing with the problems of cancer and tuberculosis, he has enshrined his name in medical annals by virtue of his work in the diagnosis and treatment of syphilis. Wassermann, a distinguished pupil of Koch and Ehrlich, has earned the name of a great benefactor of humanity.—*United States Public Health Service.*

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# The Massachusetts Medical Society

## AS REGARDS DISTRICT SECRETARIES AND TREASURERS THEIR TERMS OF OFFICE

A Letter from the Secretary of the Society to an Inquiry from One of the Districts

April 11, 1925.

*Dear Doctor:*

You ask me if there is a custom as to the length of term of the offices of secretary and treasurer of the different district medical societies in the Massachusetts Medical Society. I know of no such custom. In certain districts it has been a custom to retain the district secretary and also the district treasurer for a term of five years, but in other districts there is no such rule. The problem seems to be to get a man for either office who likes secretarial or financial duties, and, moreover, is ready and happy to do the duties of his office. The medical profession does not furnish many men who are adapted for these duties by reason of their mental makeup. Only occasionally is a man found who not only likes the duty, irksome to many, of keeping track of the whereabouts of the members of his district but also the detail duty of recording all that is done in his district and in keeping in touch with the headquarters of the parent society, for all of the districts are parts of the entire society and the many membership matters and the financial matters must be governed from a central office. If you can find a man in your district who is good at such things grapple him to you with hoops of steel and keep him just so long as he does good work and is willing to keep in office. In many districts it has been the custom to combine the offices of district treasurer and district secretary; in others the two offices remain separate. It takes some time to learn any job; in the case of the district officers this holds true, therefore there is a loss to the district in frequent changes, just as there is on Beacon Hill in constant changes of representatives. Just as soon as a representative has learned the ropes he is sent home and a new member takes his seat. It

is said that no member can accomplish much until his second year. So in the case of the district officers. It is advisable to look about pretty carefully among the younger men and pick one who thinks it worth while to do detail duty. If he does it well, then keep him in office and the district will benefit. This has been the experience in a majority of districts through a long series of years.

Sincerely yours,

WALTER L. BURRAGE,
*Secretary.*

## CORRESPONDENCE

### A CORRECTION OF "A CORRECTION"

April 10, 1925.

*Mr. Editor:*

If Dr. Alfred C. Smith will look at the 1925 catalogue of the Massachusetts Medical Society he will find that Dr. Paine of Brockton (whom he accuses me of omitting from my list of patriarchal *active* members) retired in 1920 and is therefore not eligible for inclusion among the 20 enumerated.

Should a list of "retired" members be printed Dr. Paine, who with Drs. Dutton of Wakefield, Edson of Roxbury, and Haynes, now of Minnesota, joined us in 1867, will find himself antedated by but six persons: Stone of Newton, who became a member in 1854; McDonald of Wellesley Hills and Webber of Newtonville, of 1865; Dean of Taunton, Eddy of Winchester, and Durgin of Allston, of 1866.

There is no reason why a "retired" member should not attend meetings. A retired member may have, and often does have, more activity than some of those technically classed as "active," and knowing Dr. Paine as I do, I hope that he will be active in Massachusetts Medical Society affairs for many a long year yet.

Sincerely yours,

SAMUEL B. WOODWARD.

### LONDON LETTER

(*From Our Own Correspondent*)

March 25, 1925.

#### KING EDWARD'S FUND FOR LONDON HOSPITALS

On March 17 last the Prince of Wales presided at the annual meeting of the General Council of King Edward's Hospital Fund for London. The annual report of the General Council stated that the year 1924 was the first since 1919 in which the voluntary hospitals of London did not receive any assistance from exceptional distributions towards meeting their maintenance expenditure.

The financial position, leaving out of account all the special distributions, had continued steadily to improve. The net aggregate annual deficit had declined from £381,000 for 1920 to £175,000 for 1922; and for 1923, although there were still some 54 hospitals whose income did not meet their expenditure, there was a net aggregate surplus of £227,000. The total receipts of the King's Fund for the year were £412,472. The amount of the distribution was £316,000. The aggregate sum distributed among hospitals, convalescent homes, and consumption sanatoria, during the past ten years, after including all special distributions, was £3,020,438, and since the foundation of the Fund in 1897 a total net amount of £4,950,554 has been distributed.

#### AIR TRANSPORT OF THE SICK

In Irak in Northern Kurdistan in Asia the British troops operating there have demonstrated successfully the value of aerial transport as a rapid means of evacuation of sick and wounded. During April, 1923, some 200 cases of diarrhea and dysentery occurred amongst a column of British troops. The only available ordinary transport consisted of pack animals. In the circumstances aeroplanes were used to deal with the situation; the aeroplanes were despatched from Baghdad to Kirkuk on April 25, and the operation was concluded successfully on May 2.

The first two days were characterized by extremely bad weather, while the aeroplanes were compelled to climb at least 5000 feet, so that control could be retained in the crossing of a mountain ridge. Altogether 198 cases, exclusive of medical personnel, were evacuated to Kirkuk and thence to Baghdad; the entire journey was completed by air in 128 hours 45 minutes, actual flying time. The mileage covered amounted to 9615 miles. None of the patients objected to the method of transport, and the majority stated that they enjoyed the experience. All stood the journey well. Serious cases were evacuated in the early morning or late afternoon in order to lessen the possibility of air-sickness, which is apt to occur during the hot period of the day when "bumps" in the air are experienced.

In addition to the above, a total of 161 patients was evacuated by air from outlying stations to the Royal Air Force Hospital, Baghdad, during the period May 15, 1923, to July 15, 1924.

#### THE FELLOWSHIP OF MEDICINE AND POST-GRADUATE ASSOCIATION

The Fellowship of Medicine and Post-Graduate Association held a meeting the other day at headquarters, Wimpole Street, London, its president, Sir Arbuthnot Lane, being in the chair. A certain amount of progress was reported; the body has been in existence now for five years, but the fact was deplored that advance is slow. The various medical schools and interests concerned seem unwilling to coöperate heartily, which is the only way in which success can be ensured.

Of course, this is a task of the utmost difficulty. Each school stands or falls on its own merits, and is justly proud of its hospital, resources, teachers, and its past record. It competes in healthy rivalry with other schools and in many ways the competition gives each school its strength. When, therefore, coöperation is suggested, the instinct of self-preservation is aroused immediately, and the first and most difficult problem to solve is to allay the natural anxieties of the teaching hospitals. Those in authority must be persuaded that coöperation is for the good of all and not the few, that it is a question rather of the nation than the family. At the present time lack of sufficient international intercourse in medical science is largely responsible for British work in this direction failing to receive the recognition that is justly its due, not only in foreign countries but even in the Dominions. The object should be to make British work widely known, and coöperation among the teaching schools in order to provide better opportunities and facilities for post-graduate work.

It must be borne in mind that British workers are welcomed with open arms in foreign countries, and in America in particular, and are able to pursue researches and investigations under the most favorable auspices. When they return they are apt to and indeed do compare conditions with regard to acquiring medical knowledge in their own country to those in foreign countries as distinctly behind the times. Foreigners, for the same reasons, hold the view that progress is less rapid in British medical science than elsewhere. This feeling that British medical science is in some way lagging is inimical to enterprise, and therefore progress, and those who voice the sentiments of the leaders of the Fellowship of Medicine and Post-Graduate Association in London state that only a change of system can effect the

desired improvement, and that this change should be introduced as quickly as possible.

BICENTENARY NUMBER OF GUY'S HOSPITAL GAZETTE

The *Guy's Hospital Gazette*, one of the best of the journals published by some of the British hospitals, publishes in commemoration of the anniversary of the hospital's foundation two hundred years ago a really magnificent number. It is a work of art as well as being brimful of information. In it are included History of Guy's Hospital, by Sir William Hale White, K. B. E., M. D., F. R. C. P., Consulting Physician to the Hospital; Guy's Hospital in 1924, by H. L. Eason, C. B., C. M. G., M. D. Lond., M. S., the Superintendent; The History of the Medical School, by Professor T. B. Johnston, M. B., Ch.B.; The History of Dental Surgery at Guy's, by Frank James Pearce, L. D. S., D. D. S.; The History of *Guy's Hospital Gazette*, by George A. R. Winston; The History of the Physical Society, by J. M. H. Campbell; Nursing and the Development of Nursing at Guy's Hospital, 1725-1925, by Miss F. A. Sheldon; Guy's Hospital Trained Nurses' Institution, Maternity, Charity and Midwifery Training School, by Miss F. A. Sheldon.

The history of athletics, cricket, football and other games is dealt with fully, as Guy's Hospital has always been in the front in sports and games. This number contains 215 pages and more than 100 illustrations, and constitutes in every respect a memorable memento of the occasion.

ARTIFICIAL SUNLIGHT TREATMENT

Electric power for making artificial sunshine, so that it can be turned on to any cot in the main wards, has been installed recently at the Infants' Hospital, Vincent Square, London. The mercury vapor bath, which produces a warm light simulating sunshine in its action, is already a feature at this hospital. According to Dr. Eric Pritchard, the medical director, it has proved invaluable in cases of anemia, rickets and other wasting conditions which natural sunshine would help to cure.

The first municipal clinic in London for the provision of treatment by artificial sunlight was opened on March 19 in a district of the Borough of St. Pancras, one of the large London boroughs. Professor Leonard Hill, who spoke at the opening, said that the lamp which gave off the ultra-violet rays would not harm the baby. It had been discovered that, unlike cod-liver oil, olive oil had not the power to prevent rickets, but that it could be endowed with that power by irradiating it with ultra-violet rays. Whether margarine could be similarly endowed was now the subject of investigation. In Hampstead it was being seriously proposed by the mayor that some of the public baths should be used by the children who attended the council schools for dancing around lamps to gramophone music twice or three times weekly, and in that way obtaining the advantage of ultra-violet treatment.

## MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

DISEASES REPORTED FOR THE WEEK ENDING APRIL 11, 1925

| | | | |
|---|---|---|---|
| Anterior poliomyelitis | 1 | Gonorrhea | 115 |
| Chickenpox | 175 | Influenza | 55 |
| Diphtheria | 97 | Measles | 810 |
| Dog-bite requiring anti-rabic treatment | 4 | Mumps | 87 |
| Encephalitis lethargica | 2 | Ophthalmia neonatorum | 18 |
| Epidemic cerebrospinal meningitis | 5 | Pneumonia, lobar | 159 |
| German measles | 279 | Scarlet fever | 283 |
| | | Septic sore throat | 4 |
| | | Syphilis | 49 |
| | | Suppurative conjunctivitis | 24 |
| | | Tetanus | 1 |
| | | Trachoma | 3 |
| | | Tuberculosis, pulmonary | 133 |
| | | Tuberculosis, other forms | 25 |
| | | Tuberculosis, hilum | 1 |
| | | Typhoid fever | 8 |
| | | Whooping cough | 170 |

DISEASES REPORTED FOR THE WEEK ENDING APRIL 18, 1925

| | | | |
|---|---|---|---|
| Chickenpox | 134 | Pneumonia, lobar | 141 |
| Diphtheria | 72 | Scarlet fever | 226 |
| Dog-bite requiring anti-rabic treatment | 5 | Septic sore throat | 1 |
| Encephalitis lethargica | 1 | Smallpox | 1 |
| Epidemic cerebrospinal meningitis | 4 | Syphilis | 35 |
| German measles | 218 | Suppurative conjunctivitis | 15 |
| Gonorrhea | 89 | Tetanus | 1 |
| Influenza | 32 | Trachoma | 5 |
| Measles | 802 | Tuberculosis, pulmonary | 129 |
| Mumps | 81 | Tuberculosis, other forms | 25 |
| Ophthalmia neonatorum | 29 | Tuberculosis, hilum | 1 |
| | | Typhoid fever | 12 |
| | | Whooping cough | 131 |

## RHODE ISLAND STATE BOARD OF HEALTH

CONTAGIOUS DISEASES REPORTED FOR THE WEEK ENDING MARCH 28, 1925

| | | | |
|---|---|---|---|
| *Scarlet Fever* | | *Diphtheria* | |
| Cranston | 2 | Pawtucket | 2 |
| Pawtucket | 4 | Providence | 3 |
| Providence | 8 | | |
| Woonsocket | 1 | *Measles* | |
| Coventry | 1 | Cranston | 1 |
| East Greenwich | 1 | Pawtucket | 1 |
| Johnston | 1 | Providence | 2 |
| North Providence | 6 | Woonsocket | 10 |
| North Smithfield | 1 | Cumberland | 3 |
| | | Lincoln | 1 |
| *Chickenpox* | | | |
| Pawtucket | 6 | *Pneumonia* | |
| Providence | 2 | Cumberland | 1 |
| Woonsocket | 2 | North Kingstown | 1 |
| Cumberland | 10 | | |
| | | *German Measles* | |
| *Mumps* | | Providence | 5 |
| Scituate | 2 | Warren | 1 |
| Westerly | 1 | Westerly | 2 |
| *Influenza* | | | |
| Providence | 1 | *Smallpox* | |
| Cumberland | 4 | Cumberland | 1 |

## DEATHS (STILL-BIRTHS EXCLUDED) REPORTED, WITH DEATH RATES IN NEW ENGLAND CITIES

FOR THE WEEK ENDING APRIL 4, 1925

| | Week ending April 4, 1925 | | | | | Corresponding week of 1924 | | |
|---|---|---|---|---|---|---|---|---|
| | Total deaths | Death rate | Deaths under 1 year | Infant mortality rate | Infant mortality rate for the year 1923 | Total deaths | Death rate | Deaths under 1 year |
| Boston | 266 | 17.7 | 31 | 82 | 82 | 245 | 16.4 | 37 |
| Bridgeport | 32 | | 5 | 79 | 80 | 37 | | 4 |
| Cambridge | 28 | 13.0 | 2 | 34 | 72 | 25 | 11.6 | 2 |
| Fall River | 50 | 21.5 | 14 | 201 | 92 | 31 | 13.4 | 5 |
| Lowell | 32 | 14.3 | 5 | 87 | 107 | 37 | 16.7 | 9 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Lynn | 22 | 11.0 | 2 | 53 | 79 | 29 | 14.6 | 6 |
| New Bedford | 39 | 15.0 | 12 | 199 | 106 | 20 | 7.9 | 6 |
| New Haven | 58 | 16.9 | 9 | 116 | 74 | 57 | 16.9 | 12 |
| Providence | 83 | 17.7 | 7 | 56 | 85 | 76 | 16.3 | 16 |
| Somerville | 23 | 11.7 | 2 | 54 | 70 | 17 | 8.8 | 3 |
| Springfield | 43 | 14.7 | 7 | 104 | 71 | 34 | 11.9 | 5 |
| Waterbury | 16 | | 2 | 44 | 89 | 18 | | 2 |
| Worcester | 63 | 16.5 | 14 | 162 | 76 | 50 | 13.3 | 4 |

FOR THE WEEK ENDING APRIL 11, 1925

| | Week ending April 11, 1925 | | | | | Corresponding week of 1924 | | |
|---|---|---|---|---|---|---|---|---|
| Boston | 263 | 17.5 | 38 | 101 | 82 | 258 | 17.3 | 34 |
| Bridgeport | 28 | | 4 | 64 | 80 | 29 | | 4 |
| Cambridge | 43 | 19.9 | 3 | 52 | 72 | 29 | 13.5 | 2 |
| Fall River | 31 | 13.3 | 10 | 144 | 92 | 34 | 14.6 | 9 |
| Lowell | 32 | 14.3 | 4 | 70 | 107 | 28 | 12.6 | 5 |
| Lynn | 41 | 20.4 | 5 | 133 | 79 | 26 | 13.1 | 3 |
| New Bedford | 30 | 11.6 | 7 | 116 | 106 | 30 | 11.8 | 6 |
| New Haven | 43 | 12.5 | 4 | 52 | 74 | 54 | 16.0 | 7 |
| Providence | 58 | 12.3 | 6 | 48 | 85 | 94 | 20.1 | 14 |
| Somerville | 33 | 16.9 | 7 | 187 | 70 | 15 | 7.8 | 2 |
| Springfield | 27 | 9.2 | 3 | 45 | 71 | 44 | 15.5 | 6 |
| Waterbury | 23 | | 1 | 22 | 89 | 26 | | 4 |
| Worcester | 58 | 15.2 | 6 | 69 | 76 | 42 | 11.2 | 3 |

—*Weekly Health Index*, Dept. of Commerce, Wash.

## NEWS ITEMS

### ADDRESS BY DR. ALFRED WORCESTER

AT a Commemoration Service to be held in Trinity Church, Boston, at 7.30 on the evening of May 10th, Dr. Alfred Worcester will deliver an address upon The Ideals of Florence Nightingale.

EDWARD PEIRSON RICHARDSON, M.D., has been made Associate Professor of Surgery at the Harvard Medical School, to serve from March 1, 1925. (Confirmed by Overseers April 13.)

## NOTICE

*Notices of meetings* must reach the JOURNAL office on the Friday preceding the date of issue in which they are to appear.

## REPORTS AND NOTICES OF MEETINGS

A PHYSIOLOGICAL conference will be held Wednesday, May 6, in the Bowditch Library, Building C, of the Harvard Medical School at 4 p. m. Dr. Sydney W. Britton will speak on "The Nervous Control of Insulin Secretion."

### WACHUSETT MEDICAL IMPROVEMENT SOCIETY

THE next regular meeting of the Wachusett Medical Improvement Society will be held May 6th at 3 o'clock at the Rutland State Sanatorium in conjunction with the first meeting of the Course in Tuberculosis, given by the Mass. State Board of Health in coöperation with the Wachusett Med. Improvement Society. Papers as follows will be given: History, by Dr. M. H. Joress; Physical Signs, by Dr. E. B. Emerson; X-ray, by Dr. W. B. Davidson.

Subsequent meetings of the Tuberculosis Course will be held on May 13th with a paper on Laboratory Methods, by Dr. Joseph Muller; Juvenile Tuberculosis, by Dr. H. B. Chadwick of Westfield State Sanatorium.

The third meeting will be held on May 20th with a paper on General Management, by Dr. E. B. Emerson; Treatment of Symptoms, by Dr. H. C. Hubbard; and Artificial Pneumothorax, by Dr. W. B. Davidson.

O. DRAPER PHELPS, *Secretary*

### ESSEX NORTH DISTRICT MEDICAL SOCIETY

THE 84th Annaul Meeting of this society will be held in Russell Hall, Y. M. A. C. Building, 40 Lawrence St., Lawrence, (Telephone 6191,) Wednesday, May 6, 1925.

Dinner will be served at 12.30 sharp. Following the dinner the business meeting will occur.

After this a paper and demonstration upon the living subject will be presented by William B. Breed, M. D., of Boston, Assistant in Medicine at Harvard Medical School and a member of the Committee on Health Examinations of the Massachusetts Medical Society. (One hour.)

Discussions are invited (3 minutes each). The American Medical Association holds its Annual Session at Atlantic City, N. J., upon May 25-29. Reduced railroad fares and reasonable hotel rates will be available. Automobile roads are excellent.

The Censors will meet at Hotel Bartlett, 59 Main St., Haverhill, (Tel. 8710,) on Thursday, May 7, at 2 P. M., sharp. Candidates should present diplomas to Secretary one week in advance.

J. FORREST BURNHAM, M.D. *Secretary*,
567 Haverhill St., Lawrence, Mass.
CHAS. S. BENSON, M.D. *President*
April 28, 1925.

### AN AMERICAN HEALTH CONGRESS

IN order to give health workers from every part of the country a bird's-eye view of the public health movement in its broadest aspects, the National Health Council at 370 Seventh Avenue, New York City, has planned for an American Health Congress to be held at Atlantic City during the week of May 17th, 1926.

The leading authorities on each phase of the public health movement; such as tuberculosis, cancer, heart disease, blindness, social and mental hygiene, public health nursing, preventable diseases, and positive health education for both children and adults, will present the latest and

most authoritative findings and programs for the solution of these problems.

Among the groups that will coöperate in the Congress are the following members of the National Health Council:

American Child Health Association; American Heart Association; American Public Health Association; American Red Cross; American Social Hygiene Association; American Society for the Control of Cancer; Conference of State and Provincial Health Authorities of North America; National Committee for Mental Hygiene; National Committee for the Prevention of Blindness; National Organization for Public Health Nursing; National Tuberculosis Association; United States Children's Bureau; United States Public Health Service; Women's Foundation for Health.

In addition to these groups, it is anticipated that leading health associations of Canada, Mexico and elsewhere will coöperate in this Congress.

The American Nurses' Association, the National Organization for Public Health Nursing, and the National League of Nursing Education will hold their regular biennial meeting during this same week at Atlantic City. The General Federation of Women's Clubs will meet directly after the Congress.

Already well organized plans are under way. The Atlantic City convention authorities and the hotels will coöperate to the fullest extent. The Steel Pier has been engaged for headquarters and meetings will be held there and at the nearby hotels on the boardwalk. Part of the space on the Steel Pier will be used for commercial and educational exhibits. A strict censorship will be exercised, however, in order that the exhibits may conform with the high standards of such a meeting.

## ESSEX SOUTH DISTRICT MEDICAL SOCIETY

THERE will be a meeting of the Censors on Thursday, May 7th., at 3.30 P. M., at the Salem Hospital.

Annual meeting at the Tavern, Gloucester, Wednesday, May 13th, at 6.30 P. M. Speaker, Dr. Louis I. Harris, Director of Preventable Diseases, New York.

R. E. STONE, *Secretary.*

## PROGRAM, FORTY-NINTH ANNUAL SESSION OF THE AMERICAN ASSOCIATION FOR THE STUDY OF THE FEEBLEMINDED

RALEIGH, NORTH CAROLINA, MAY 8, 9, 10 AND 11, 1925, HOTEL SIR WALTER

### OFFICERS, 1924-1925

President—Groves B. Smith, M. D., Asst. Neuropsychiatrist, Henry Ford Hospital, Detroit, Mich.

Vice-President—A. R. T. Wylie, M. D., Superintendent, Institution for Feeble-minded, Grafton, N. D.

Secretary-Treasurer—Benjamin W. Baker, M. D., Superintendent, Laconia State School, Laconia, N. H.

Councillors—George E. McPherson, M.D., Superintendent, Belchertown State School, Belchertown, Mass. (four years); George L. Wallace, M. D., Superintendent, Wrentham State School, Wrentham, Mass. (three years); J. Morehead Murdock, M.D., Superintendent, State Institution for the Feebleminded of Western Pennsylvania, Polk, Pa.; Charles Bernstein, M. D., Superintendent, Rome State School, Rome, N. Y. (one year).

Auditors—M. O. Blakeslee, M.D., Assistant Supt., Michigan Home and Training School, Lepeer, Mich. (three years); George Mogridge, M. D., Superintendent, Iowa Institution for Feebleminded Children, Glenwood, Iowa. (two years); Earl W. Fuller, M.D., Superintendent, Pennhurst State School, Pennhurst, Pa. (one year).

### FRIDAY MORNING, MAY 8TH, 9:30 A. M.

Invocation—Rev. W. M. White, Pastor, First Presbyterian Church, Raleigh, N. C.

Address of Welcome—His Excellency, A. W. McLean, Governor of North Carolina. His Honor, E. E. Culbreth, Mayor of Raleigh.

Response—J. M. Murdock, M.D., Superintendent, State Institution for the Feebleminded of Western Pennsylvania, Polk, Pa.

Appointment of Nominating Committee

Reports

Notices

### DELINQUENCY AND CRIME AS RELATED TO MENTAL DEFICIENCY

Chairman, William J. Ellis, M.D., Trenton, N. J.

"Institutional Training of Defective Delinquents." By Walter N. Thayer, M.D., Superintendent, State Department for Defective Delinquents, Napanoch, N. Y.

ABSTRACT—The defective delinquent defined. His hereditary and environmental influences discussed.

A thorough consideration of our present legal and institutional practice in dealing with the defective delinquent including parole preparation, placement, supervision and an outline of objectives and ideals.

Discussion to be opened by E. R. Johnstone, M.D., Director, the Training School, Vineland, N. J.

"The Scope of the Problem of Delinquency and Crime as Related to Mental Deficiency." By Herman M. Adler, M.D., Criminologist, Chicago, Ill.

ABSTRACT—Legal criteria of mental deficiency in the State of Illinois.

Incidence of mental deficiency in the penal

and correctional institutions in the State of Illinois.

Comparison of these results with draft army findings.

Illustrative cases.

Significance of the findings for treatment and social adjustment.

Discussion to be opened by William J. Ellis, M.D., Director, Division of Education and Classification, Department Institutions and Agencies, Trenton, N. J.

"Fighting Crime with Commonsense and Science." By Burdett C. Lewis, Commissioner, Department Institutions and Agencies, Trenton, N. J.

ABSTRACT—Pessimistic scientists prophesy that our civilization is going to destruction as have others, from greed and materialism. Religion and science are indicating how this may be avoided.

The steam age produced centralization; the electric age will produce decentralization.

Mal-adjustment produced as a result of chemical and mechanical discovery is a factor in delinquency and crime.

Lawyers and judges are not the only means of fighting crime.

A thoroughly aroused intelligent, unified and earnest people have available, scientific means of purging society, of both crime and degeneracy.

Discussion to be opened by B. W. Baker, M. D., Supt., Laconia State School, Laconia, N. H.

"The Role of Focal Infections in Relation to Defective Delinquents." By Henry A. Cotton, M.D., Medical Director, N. J. State Hospital, Trenton, N. J.

ABSTRACT—Juvenile delinquency apparently increasing at an alarming rate.

Discussion of types of juvenile delinquency. (a) Those due to faulty environment and training. (b) Those due to chronic toxic factors as a result of focal infection.

Work of Psychiatric Clinic for Correctional Institutions in New Jersey.

Necessity for a clearing house for these types before they are sent to correctional institutions.

Results of detoxication in this group.

Discussion to be opened by A. L. Jacoby, M.D., Director, Psychopathic Clinic, Recorder's Court, Detroit, Mich.

### FRIDAY AFTERNOON, MAY 8TH, 2:00 P. M.

#### PSYCHOLOGY AND MENTAL DEFICIENCY

Chairman, Edgar A. Doll, M. D., Columbus, Ohio.

"Psychological Methods of Examination and Diagnosis in the Field of Mental Deficiency." By G. M. Willson, Assistant Psychologist, Department Institutions and Agencies, Trenton, N. J.

ABSTRACT—A survey of types of tests and scales available in the study of intelligence, personality, aptitude and achievement. Objective bases for the evaluation of tests and test batteries. What these tests now offer to the clinician and what they will presently offer.

"Serious Mental Defects Without Feeble-mindedness." By Francis Maxfield, Ph. D., Clinical Psychologist and Director, Bureau of Special Education, State Department of Public Instruction, Harrisburg, Pa.

"The Functions of a Clinical Psychologist in an Institution." By Lloyd N. Yepsen, A. M., Clinical Psychologist, The Training School, Vineland, N. J.

Discussion to be opened by Thomas H. Haines, M.D., Director, Division of Mental Deficiency, National Committee for Mental Hygiene, New York.

### FRIDAY EVENING, MAY 8TH, 7:30 P. M.

#### RELATION OF MENTAL DEFICIENCY TO THE PUBLIC

Chairman, C. Banks McNairy, M.D., Kinston, N. C.

"The Relation of Feeblemindedness to Crime, Delinquency and Law." By B. O. Whitten, M.D., Superintendent, State Training School, Clinton, S. C.

"The Relation of Feeblemindedness to Education, Citizenship and Culture (Power Without Judgment)." By Mary M. Wolfe, M.D., Supt., Laurelton State Village, Laurelton, Pa.

ABSTRACT—The standard of culture of any nation is in direct proportion to the number of bright people in that nation. An ignorant, illiterate or mentally deficient populace is the prey of unscrupulous politicians. A high type of democratic government is only developed by a people of high intelligence. No educational system is perfect until it insures to every individual regardless of intelligence quotient, educational and training opportunities ample to fully develop all mental, physical and vocational abilities.

Discussion to be opened by Harry W. Crane, M.D., State Psychologist for the Board of Charities and Public Welfare, Raleigh, N. C.

"Mental Defect and Poverty." By Thomas H. Haines, M.D., Director, Division on Mental Deficiency, National Committee for Mental Hygiene, New York.

ABSTRACT: An analysis and description of very extensive studies conducted by the National Committee for Mental Hygiene, with important psychological and sociological deductions.

Discussion to be opened by Joseph P. Eidson, N. Y. Association for Improving the Condition of the Poor, New York City.

"The Relation of Mental Deficiency to Morals, Religion and Ethics." By J. Morehead Murdock, M. D., Superintendent, Institution for Feebleminded of Western Pennsylvania, Polk, Pa.

ABSTRACT—Morals are not dependent upon intelligence. We all know GOOD mental defec-

tives and BAD intellectuals. Mental Defectives remain as children. Our religion teaches us that "Of such is the Kingdom of Heaven." As we care for our children so should we care for our mental defectives.

SATURDAY MORNING, MAY 9TH, 9:30 A. M.

Report of Auditors
Report of Nominating Committee
Election of Officers
Election of Members
Unfinished Business

MOTIVATION OF SPECIAL CLASS WORK

Chairman, Francis Maxfield, Ph. D., Harrisburg, Pa.

"Group Activity in the Special Class." By Miss Letty G. Galbraith, Teacher of Special Class, Spartanburg, S. C.

ABSTRACT—Selection of a problem that appeals to the interest and needs of the group. Using their knowledge as they get it.

Habits taught: (a) Sanitation and health, (b) Motor control, (c) Socializing benefit of group work, (d) Encouraging children to create.

Awakens their jaded interest in "book learning."

Application to my class.

Discussion to be opened by Grace A. Taylor, Ph. D., Lecturer and Psychologist, Columbia University, New York City.

"Organization of Work in the Special Classes of a City." By Miss Mabelle S. Walker, Teacher of Special Classes, Richmond, Va.

Discussion to be opened by Miss Mary Van-Uxem, Psychologist, Laurelton State School, Laurelton, Pa.

"Motivation of Elementary Academic Work." By Gladys G. Ide, Ph. D., Director of Special Education, Public Schools, Philadelphia, Pa.

ABSTRACT: This paper deals in particular with methods and purposes of academic work for the feebleminded. The essential necessity is an ultimate objective and a definite plan of work. The importance of reading and oral English is especially emphasized.

Discussion to be opened by Miss Edna Iatho, Psychologist, Indiana School for Feebleminded, Fort Wayne, Ind.

SATURDAY AFTERNOON, MAY 9TH, 2:00 P. M.

THE INSTITUTION FOR THE MENTALLY DEFICIENT IN RELATION TO OTHER INSTITUTIONS AND AGENCIES

Chairman, William C. Sandy, M.D., Harrisburg, Pa.

"The Institution in Relation to Community Supervision." By Miss Inez Stebbins, Supervisor of Colonies and Parole, Rome State School, Rome, N. Y.

ABSTRACT—An analysis of the character moulding effect on mental defectives of institution life, colony life and home life under a parole system. Emphasis is placed on the necessity of coöperation, of a thorough understanding of personality and on the influences which help to determine final failure or success.

Discussion to be opened by Stanley P. Davies, M. D., Ph. D., Executive Secretary, Mental Hygiene Committee, N. Y. State Charities Aid Association.

"Organization of Clinics and Extra-Institutional Supervision." By Florentine Hackbusch, A. B., A. M., Field Representative, Bureau of Mental Health, Dept. of Welfare, Harrisburg, Pa.

ABSTRACT—The organization of clinics for extra-institutional supervision of the mentally deficient should be a state enterprise admissible to several methods, preferable to rural sections rather than to large cities. The feebleminded should be considered in the plan for a general mental health clinic which should have for its aim the identification and treatment of every feebleminded person in the community as early in life as possible, and the supervision of all feebleminded persons remaining in the community, by properly qualified workers.

Discussion to be opened by V. C. Branham, M. D., Psychiatrist, N. Y. State Commission for Mental Defectives.

"General Role of an Institution for the Mentally Deficient." By Earl W. Fuller, M. D., Superintendent, Pennhurst State School, Pennhurst, Pa.

ABSTRACT—Attention is called to the public's lack of knowledge or general misinformation about mental defectives and the institutions for their care.

The various activities open to the state institution for the care of mental defectives is outlined.

Discussion to be opened by Edwin Twitmeyer, M. D., University of Pennsylvania, Philadelphia, Pa.

"The Institution in Relation to the School System." By Stanley P. Davies, M. D., Ph. D., Exec. Secretary, Mental Hygiene Committee, N. Y. Charities Aid Association.

ABSTRACT—The public school of today must shoulder the primary responsibility of studying all children, of determining the type of training and of furnishing suitable training and education for those not absolutely needing institutional care.

The institution's function is to supplement the work of the public school by providing care and training for those not adapted to the special class including (1) those who are too low grade intellectually for special class instruction; (2) those who are too troublesome in behavior or uncontrollable in habits to be manageable in the class room; (3) those who lack suitable home environment; (4) those beyond school age. The institution and the public

school can and should work in the closest coöperation, and between them no mentally defective child should fail to receive the training best suited to his capacities.

SATURDAY EVENING, MAY 9TH, 8:00 P. M.

Annual Dinner. Address by the President, Groves B. Smith, M. D., Assistant Neuropsychiatrist, Henry Ford Hospital, Detroit, Mich.

SUNDAY, MAY 10TH

The Trustees and Superintendent of Caswell Training School at Kinston extend a cordial invitation to the Association to visit that institution May tenth. Buffet luncheon will be served at 1:00 P. M. and memorial services will be held in the chapel at 2:30 P. M.

Members can leave Raleigh by bus or car at 9:00 A. M. and leave Kinston on return at 5:15 P. M. or by train at 7:30 P. M.

MONDAY MORNING, MAY 11TH, 9:30 A. M.

PATHOLOGY AND PHYSICAL CHARACTERISTICS OF MENTAL DEFECTIVES

Chairman, A. R. T. Wylie, M. D., Grafton, N. D.

"A Review of the Literature on the Brain Pathology of Mental Deficiency." By Howard W. Potter, M. D., Clinical Director, Letchworth Village, Thiells, N. Y.

ABSTRACT—A review and analysis of our present knowledge of the brain pathology of mental deficiency.

Discussion to be opened by Groves B. Smith, M. D., Asst. Neuropsychiatrist, Henry Ford Hospital, Detroit, Mich.

"Further Studies on Mongoloid Dwarfs." By Charles B. Davenport, M. D., Cold Spring Harbor, Long Island, N. Y.

ABSTRACT—Further studies of Mongoloid dwarfs at Polk, Pa., and Lepeer, Mich., indicate that if Mongoloids survive adolescence their characteristics may be modified.

Discussion of dwarfish individuals resulting from induced dwarfism in mice by cauterization of the thyroids of the female mice before conception.

Discussion to be opened by R. Bennett Bean, M. D., University of Virginia.

"Endocrinology and Blood Chemistry." By William A. Newbold, M. D., Caswell Training School, Kinston, N. C.

"Anthropometric Studies of Abnormal Children and Mongoloid Dwarfs." By R. Bennett Bean, M. D., University of Virginia.

ABSTRACT—Discussion of an anthropometric survey made in institutions in Woodbine, Vineland and New Lisbon, N. J.

A comparison of measurements in various races and a discussion of their significance and application.

Discussion to be opened by C. B. Davenport, M. D., Director, Department of Genetics, Cold Spring Harbor, Long Island, N. Y.

MONDAY AFTERNOON, MAY 11TH, 2:30 P. M.

PSYCHIATRY AND MENTAL DEFICIENCY

Chairman, Sanger Brown, 2d, M. D., New York Commission for Mental Defectives, New York City.

"Psychoses in the Feebleminded." By Leo Henry Bartemeier, M. D., The Johns Hopkins Hospital, Baltimore, Md.

ABSTRACT—Brief review of the literature.

Records of some dispensary cases.

Psychopathological observations on these patients.

Discussion of the symptomatology in relation to the recognized reaction types.

"Understanding the Mentally Handicapped." By Thomas H. Haines, M. D., Director, Div. of Mental Deficiency, Nat'l Committee for Mental Hygiene, New York City.

"Psychiatric Problems in the Care and Management of Delinquent Children." By V. C. Branham, M. D., Psychiatrist, N. Y. State Commission for Mental Defectives.

ABSTRACT—Development instincts, emotions and physical attributes and their correlation to conduct and character.

The essential necessity of psychiatric ability capable of understanding and interpreting developmental characteristics in order to intelligently direct care and instruction of problem children and delinquents.

"State Administrative Problems in the Care of Mental Defectives." By Sanger Brown, 2d, M. D., Chairman, N. Y. State Commission for Mental Defectives, New York City.

ABSTRACT—A complete state institution equipped to care for all types of cases administered by a superintendent with a staff of psychiatrists, psychologists, special teachers, social workers and trained personnel.

The institution should not only care for patients but be an educational and scientific center maintaining extra-institutional activities such as parole, social supervision, establishment of colonies and the inauguration of clinics.

Separate institutions for defective delinquents.

Development of ungraded classes by state departments of education with specially trained teachers, equipped special classrooms and financial support.

A department qualified to direct this program.

A mental deficiency law which will make these activities possible.

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## MEETING OF AMERICAN HEART ASSOCIATION AT HADDEN HALL HOTEL, ATLANTIC CITY, TUESDAY AFTERNOON, MAY 26th, 2 P. M.

1. "Public Health Aspects of Heart Disease," Dr. John D. McLean.
2. "The Care of Adults with Moderate Heart

Disorders," Dr. Joseph Sailor, Philadelphia.

3. "Economic Aspects of Heart Disease," Dr. James G. Carr, Chicago.
4. "What Can The American Heart Association Accomplish," Dr. Robert S. Halsey, New York.
5. "Hypertension in the South," Dr. Neuton Stern, Memphis.
6. "The Selection of Patients with Angina Pectoris for Cervical Sympathectomy, with a Report of Additional Cases," Dr. S. A. Levine and Dr. F. C. Newton, Boston.
7. "New Observations on the Classification of Cardiac Diagnosis, wth Especial Reference to Etiology," Dr. Merrill M. Myers, Des Moines, and Dr. Paul D. White, Boston.
8. "The Heart in Myxedema," Dr. F. A. Willius and Dr. S. F. Haines, Rochester, Minn.
9. "Factors Involved in Localization of Vegetations on the Heart Valves—Illustrated with Lantern Slides," Dr. W. J. Kerr, San Francisco, Cal.
10. "Importance of Blood Examination in the Recognition of Coronary Artery Thrombosis and its Sequellae," Dr. E. Libman, New York.

DR. LEWIS A. CONNOR, *President*,
DR. ROBERT H. HALSEY, *Secretary*.

## NORFOLK DISTRICT MEDICAL SOCIETY

THE Board of Censors of the Norfolk District Medical Society will hold a meeting for the examination of applicants for membership in the Massachusetts Medical Society at Roxbury Masonic Temple, 171 Warren St., on Thursday, May 7, at 4 P. M.

N. B.—Candidates must present their diplomas for examination by the Censors.

FRANK S. CRUICKSHANK, *Secretary*.

### EXTRACT FROM BY-LAWS OF THE MASSACHUSETTS MEDICAL SOCIETY

I. Candidates for admission into The Massachusetts Medical Society may be either male or female; and every candidate must, by examination, as hereinafter provided, satisfy the Censors of the Society that he is not less than twenty-one years of age; that he is of sound mind, and good moral character; that he has a good general English education; that he has a knowledge of the principles of experimental philosophy; that he has such an acquaintance with the Latin language as is necessary for a good medical and surgical education; that he has studied medicine and surgery three full years under the direction, and attended the practice, of some reputable, regularly educated physician or physicians; that he has attended two terms of study, or two full courses of lectures in separate years, at an authorized medical school, recognized by the Councillors of the Society, and possesses a diploma or its equivalent from such school; that he does not profess to cure diseases by, nor intend to practice, spiritualism, homoeopathy, allopathy, Thomsonianism, electicism, or any other irregular or exclusive system, generally recognized as such by the profession, or declared so by the Councillors of the Society; and that he possesses such other qualifications as the Society may deem necessary.

II. A candidate found to possess the qualifications above prescribed, shall, after paying the assessment ($8.00) for the current year and subscribing to the By-Laws, become a Fellow of the Society.

## CENSORS' MEETING

THE Censors of the Suffolk District Medical Society will meet for the examination of candidates at the Medical Library, No. 8 The Fenway, Thursday, May 7, 1925, at 4 o'clock.

Candidates should make personal application to the Secretary, and present their medical diploma at least one week before the examination.

LESLEY H. SPOONER, M.D., *Secretary*.
520 Commonwealth Avenue, Boston.

## WORCESTER NORTH DISTRICT MEDICAL SOCIETY

THE sixty-sixth annual meeting was held at the Leominster Hospital, Tuesday, April 28, 1925, at 4 P. M.

Annual election of officers.

Annual oration—Dr. R. S. Ely.

Collation.

B. H. HOPKINS, *Pres.*,
C. H. JENNINGS, *Secy*.

## SOCIETY MEETINGS

### DISTRICT MEDICAL SOCIETIES

***Essex North District Medical Society***

**May 6, 1925. Annual meeting at Young Men's Christian Association Building, 40 Lawrence Street, Lawrence.**

***Franklin District Medical Society***

**The next meeting of the Franklin District Medical Society will be held on the second Tuesday in May.**

***Hampshire District Medical Society***

**The next meeting will be held the second Wednesday in May.**

***Middlesex East District Medical Society***

**Wednesday, May 13. Colonial Inn, North Reading.**

***Middlesex South District Medical Society***

**Winter Schedule—The plans for winter meetings of the Society include the stated meeting in April, two hospital meetings, and five meetings to be held in conjunction with the Suffolk District Medical Society and the Boston Medical Library (two surgical, two medical, and one general).**

***Norfolk South District Medical Society***

**Meetings will be held the first Thursday of each month to May, inclusive, at 12 noon, at the Norfolk County Hospital, South Braintree.**

***Worcester District Medical Society***

**May 14, 1925. Annual meeting.**

If you desire further information in regard to these meetings write to the Secretaries of the District Medical Societies (listed on page viii of the Advertising Section). The Massachusetts Medical Society Directory contains their addresses.

NEW ENGLAND STATE MEDICAL SOCIETIES

The annual meetings of the New England State Medical Societies are scheduled as follows:

Connecticut State Medical Society—Bridgeport, May 20-21, 1925.
Maine Medical Association—Bar Harbor, June 23-25, 1925.
Massachusetts Medical Society—Boston, June 9-10, 1925.
New Hampshire Medical Society—Manchester, May 19-20, 1925.
Rhode Island Medical Society—Providence, June 4, 1925.
Vermont State Medical Society—St. Johnsbury, Oct. 15-16, 1925.

## BOOK REVIEWS

*Manual of the Diseases of the Eye.* By CHARLES H. MAY: William Wood & Company. 11th Edition.

The Eleventh Edition conforms to the usual high standards set by its predecessors.

The chief changes from the 10th Edition are in the rewriting of Chapter XI on "Uveitis" and Chapter XXV on "Disturbances of Motility of the Eye."

A new colored plate representing the fundus of a negro has been added. The number of illustrations remains approximately the same. Under the chapter on "Objective Examination of the Eye" a new paragraph appears explaining the uses of the Slit Lamp and corneal microscope

*Modern Aspects of Syphilis.* By M. J. HORGAN, late resident officer General Dispensary, Nottingham. Published by Henry Frowde and Hodder & Stoughton, London. Price $3.00.

The author has spent considerable time in the Finger Clinic in Vienna and in the main he presents the view of that clinic, giving special emphasis to the spinal fluid findings in all stages of the disease. He takes up in considerable detail the pathology: the wide distribution of the treponemata throughout the individual long before the primary lesion develops, and shows what is not yet sufficiently understood by some that the nervous system as well as the skin and all organs of the body are involved by this early spirochetemia and at this time is laid the foundation of all later disturbances. He discusses the spinal fluid findings during the primary and secondary stages, at which times there is a fairly large percentage of positives, though at this time no neurological symptoms are usually recognized. There may be fluctuations in some cases so that one may not safely depend on one negative examination early in the disease. Cases with leukoderma and alopecia have most consistently positive spinal fluids. Specific therapy is discussed in considerable detail, great emphasis being placed on energetic treatment at the very earliest possible time in the hope of obtaining a complete cure, while long treatment should be given for all late cases. Non-specific forms of therapy are also discussed. The appendix contains complete directions for the performance of all the usual tests of the spinal fluid except the Wassermann. The book is small and concise and should be very useful to any one treating syphilis, and by emphasizing as it does the central nervous system involvement should lead readers of the book to give greater early heed to that phase of the problem than is commonly done at present.

*The Relative Position of Rest of the Eyes and the Prolonged Occlusion Test.* By F. W. MARLOW, M.D., M. R. C. S., Eng., F. A. C. S., Professor of Ophthalmology in the College of Medicine, Syracuse University. Small 8vo. Cloth, 104 pages, illustrated with original diagrams and charts. Philadelphia: F. A. Davis Company, 1924.

A small compact volume giving in detail the methods and results which the author has obtained by the prolonged occlusion test. This is based on the study of seven hundred cases. Period of occlusion varied from six days to twenty-seven days.

The headings of the chapters are, Introductory, The Method, The Relative Position of Rest, Orthophoria, Tabulation and Analysis of Cases and Some Inferences to be Drawn, Muscle Balance in Relation to Refraction, Age, Hereditary and Evolution, Abduction, Indications for the Use of the Test, Effects of Occlusion on Symptoms, Near Point of Convergence, Treatment.

The results are well tabulated and analyzed. The short chapter on Treatment is of distinct practical value. The work is a distinct contribution to our knowledge of the ocular muscles.

*Heredity in Nervous and Mental Disease.* Paul B. Hoeber, Inc., New York, 1923.

This comprehensive review of the subject is the report of the third annual meeting of the Association for Research in Nervous and Mental Disease. Reports have already been published by this same society on acute epidemic encephalitis and multiple sclerosis.

The society meets once a year and spends two days in the consideration of a single subject. The report on heredity consists of papers by sixteen well-known contributors. The field covered is very wide, ranging from a detailed report of the biological features found in cells and chromosomes to heredity in fictional literature. Each paper is followed by a brief discussion of the subject in the form of questions and answers.

This excellent presentation should be of great value to all neuro-psychiatrists who seek a sound knowledge of heredity as a broad foundation and essential part of their training.